Intensive Cognitive Behavioural Therapy for Social Anxiety Disorder: A Pilot Study

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Statement

I declare that this research report is my own work and that, to the best of my knowledge and belief, it does not contain material from published sources without proper acknowledgement, nor does it contain material which has been accepted for the award of any other higher degree or graduate diploma in any university.

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Alexandra Hunn Date

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Abstract

Individual cognitive behavioural therapy (CBT), typically delivered in 12-16 weekly sessions, is the most effective treatment available for SAD. However, CBT for SAD often demonstrates lower effect sizes than seen in other anxiety disorders. Intensive treatments, consisting of multiple sessions per week, have been found to be effective for other anxiety disorders but have been studied in group format only for SAD. This study investigated the effect of intensive individual CBT (IICBT) delivered in three 60-minute sessions per week, over four consecutive weeks (total 12 sessions). Participants were eight outpatients (Mean age = 28 years, 87.5% female) with a primary diagnosis of SAD. Large within-group effect sizes were found at post-treatment on the Social Phobia Inventory (SPIN; d= 1.61; p = .02), the Social Interaction Anxiety Scale (SIAS; d= 1.14; p = .03), and Social Phobia Scale (SPS; d= 0.99; p=.12). At three months post treatment, large effect sizes were reported on the SPIN (d= 1.94; p = .001), the SIAS (d= 2.18; p = .002), and SPS (d= 1.70; p=.002). Despite a small sample size, this study provides preliminary data to suggest that IICBT is effective for outpatients with a primary diagnosis of SAD, with results similar or superior to standard treatments. This method provides an additional treatment option, and may be attractive for individuals with severe SAD symptoms, those who need to travel to treatment, and clients or psychologists wishing to reduce the timeframe of treatment. Larger and more rigorous studies are needed to confirm these findings.

Social anxiety disorder (SAD) is a common and impairing mental illness, which is characterised by excessive fear of negative evaluation in social situations. Cognitive-behaviour therapy (CBT) is considered to be the most effective psychological treatment for SAD and this treatment is typically provided in approximately 12 -16 weekly individual sessions. Recently, researchers have attempted to enhance the efficacy of CBT by altering the treatment format. One way to do this is to provide treatment in an intensive fashion, where clients complete multiple sessions per week. The aim of the current study is to examine the efficacy of intensive individual CBT (IICBT) on SAD symptoms using an open trial design.

Classification

Social anxiety disorder, previously known as social phobia, is an anxiety disorder that is characterised by a persistent and intense fear of negative evaluation (American Psychological Society [APA], 2013). The anxiety that is experienced in social situations may result in avoidance or maladaptive coping strategies that are designed to help the individual manage their fear (APA, 2013). While the majority of individuals experience some anxiety about certain social situations, SAD differs from normative shyness in regard to its intensity, pervasiveness, and the adverse impact on the functioning of the individual. A diagnosis of SAD requires the anxiety to cause significant distress and/or substantial impairment (APA, 2013). The *Diagnostic and Statistical Manual of Mental Disorders- Fifth Edition* (DSM-5; APA, 2013) criteria is outlined in Appendix A. Despite renaming the disorder, there have been only two notable alterations to the diagnostic criteria in DSM-5(APA, 2013) since the previous version. Firstly, a six month minimum timeframe for symptoms, previously only applicable to children, was introduced. Secondly, the clinician may now judge the client's anxiety as excessive or inappropriate, whereas in *Diagnostic and Statistical*

Manual of Mental Disorders- Fourth Edition- Text Revision (APA, 2000), the individual must acknowledge this themselves.

Clinical Features of Social Anxiety Disorder

Prevalence. Social anxiety disorder is a common mental health condition. The National Survey of Mental Health and Wellbeing (Australian Bureau of Statistics [ABS], 2007) estimates the 12-month prevalence of SAD in Australia at approximately 4.7%, making it the second most common mental illness for adults, after post-traumatic stress disorder (PTSD; 6.4%; ABS, 2007). In the United States the 12-month prevalence estimate is slightly higher at approximately 7% (Kessler, Chiu, Demler, & Walters, 2005). The lifetime prevalence rate is estimated to be approximately 10% in Australia (ABS, 2007) and the United States (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012). The prevalence rate of SAD, as defined in the fifth edition of the DSM, is still to be determined.

Significant gender differences are seen in the prevalence of SAD, with a higher proportion of women being diagnosed with the condition (ABS, 2007). In addition, women are diagnosed with comorbid disorders more frequently than men and appear to be more adversely affected by their social anxiety (McLean, Asnaani, Litz, Hofmann, 2011). The disorder typically develops in early adolescence (mean age of onset = 13 years; Kessler, Berglund, Demler, Jin, Merikangas & Walters, 2005) and tends to be chronic without treatment (Chartier, Hazen & Stein, 1998).

Social anxiety disorder occurs across cultures, but may be more prevalent in individualist cultures such as the United States and Russia in comparison to East Asian cultures (Hofmann et al., 2010). This may be because the expression of SAD is dependent on the cultural context of the individual and is influenced by cultural norms (Hofmann et al., 2010). One culture-specific presentation of SAD that has

gained significant research attention is *taijin kyofusho*, which is most common in Japan and Korea. *Taijin kyofusho* is characterised by anxiety that is associated with offending or embarrassing other individuals, rather than embarrassing oneself (Hofmann et al., 2010). Treatment response in SAD has been found to be equally efficacious in diverse samples, despite notable variations in the disorder across cultures, sexes, races, and ethnicities (Hofmann et al., 2010).

Comorbidity. A significant proportion of individuals with SAD also meet criteria for another mental illness; approximately 81% of individuals with SAD report an additional mental health illness, and 48% reported three or more diagnoses (Magee, Eaton, Wittchen, McGonagle & Kessler, 1996). Further, there appears to be a positive correlation between severity of SAD symptoms and risk of comorbidity (Ruscio, Brown, Chiu, Sareen, Stein, & Kessler, 2008). The most commonly co-occurring disorders include other anxiety disorders, mood disorders, and substance-use disorders (respectively co-occurring in approximately 50%, 31% and 41% of individuals with SAD; Wittchen, Stein & Kessler, 1999).

Consistent with the early onset of the disorder, SAD has been found to most commonly occur before the development of any co-morbid disorders (Stein, Fuetsch, Müller, Höfler, Lieb & Wittchen, 2001), and to contribute to the development of other disorders. For example, alcohol use disorder may be developed as a consequence of the effects of alcohol on social inhibition (Zimmermann, Wittchen, Höfler, Pfister, Kessler & Lieb, 2003). These studies indicate the importance of early detection and treatment for SAD, which may prevent the development of subsequent disorders. However, the presence of some common comorbidities, such as major depressive disorder, does not appear to affect CBT outcomes (Lincoln & Rief, 2004).

Impairment. Individuals with SAD tend to experience substantial functional

impairment, including educational under-achievement, under-employment, financial dependence, and poor interpersonal relationships (Aderka et al., 2012). The annual per capita total costs of individuals with SAD are estimated to be £136 million (approximately AUD$291 million) per one million people annually (Acarturk, Smit, de Graaf, van Straten, ten Have & Cuijpers, 2009). Ormel et al. (2008) measured the impairment caused by common physical and mental illnesses and found that SAD caused a similar level of impairment as disruptive mental health conditions including intermittent explosive disorder, attention deficit hyperactivity disorder, and oppositional defiant disorder, as well as physical health conditions including chronic pain, arthritis, and heart disease.

In sum, SAD occurs in a significant proportion of the population and is present across cultures. If untreated, the disorder is chronic, causes significant impairment, and is costly to the economy. Further, these costs are likely to be increased by the presence of a comorbid condition. Given these statistics, the need for accessible and effective treatments for illnesses such as SAD is evident.

Theoretical Models and Treatments

There are a number of pertinent theories of SAD, including genetic, neurological, and cognitive-behavioural. These theories have led to the development of different treatment approaches and are outlined below.

Genetic models and treatment. Evidence from twin studies and family studies indicates that there is a significant genetic contribution to a predisposition for the development of SAD (Merikangas, Lieb, Wittchen & Avenevoli, 2003; Stein, Jang & Livesley, 2002), and that approximately 42% of variance in fear of negative evaluation in a non-clinical sample may be attributed to genetic factors (Stein et al., 2002). However, despite evidence that some aspects of SAD are heritable, the

specifics of precisely what is inherited are unclear and research regarding specific genes responsible for the presence of traits related to SAD are inconsistent (Stein & Stein, 2008). While further research is required, the genetic models have not translated to effective treatments at this time.

Pharmacological models and treatment. Pharmacological treatment is based on the notion that SAD is caused by abnormal neurotransmitter activity, and that inducing change in neurochemical makeup through medication can resolve this. The brain areas associated with a fear response (e.g. the amygdala, the hippocampus, and surrounding areas) have been found to demonstrate an increase in regional cerebral blood flow when individuals with SAD undertake an anxiety- provoking public speaking task (Furmark et al., 2002). Following successful cognitive-behavioural or SSRI treatment, a significant decrease in the blood flow to these areas is seen (Furmark et al., 2002), indicating that serotonin activity and ability to suppress the cerebral fear response is associated with improvement in SAD symptoms. This action can be achieved through either pharmacological treatment or CBT. Pharmacological treatments that target serotonin (e.g., Selective Serotonin Reuptake Inhibitors (SSRI) are widely used for the treatment of SAD (Ganasen & Stein, 2009) and a recent meta-analytic study by Davis, Smits and Hofmann (2014) reported small to medium effect size of SSRI treatment for SAD (Hedges' $g = 0.39$), indicating that pharmacological treatment produce a reduction in SAD symptoms.

Cognitive-behavioural model and treatment. Rapee and Heimberg's cognitive-behavioural model (1997) is one of the most well-established theories of SAD. Figure 1 portrays this model, and indicates the techniques used to target factors in the model. Rapee and Heimberg (1997) postulate that in a social situation, a socially anxious individual perceives them self to be observed by an audience, and

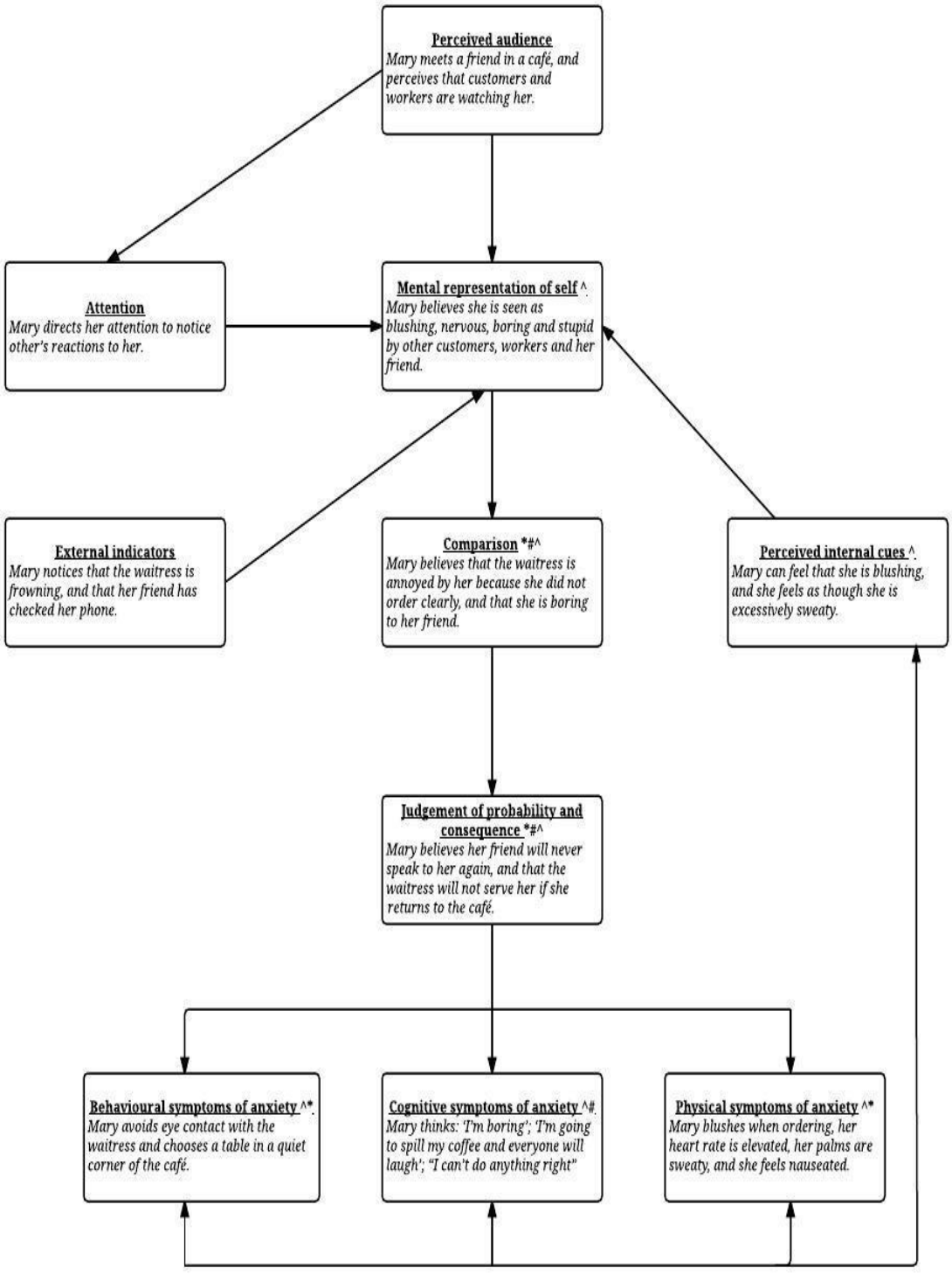

Figure 1. Rapee and Heimberg's (1997) Cognitive Behavioural model.***** = psychoeducation interventions will target these components of the model; # = cognitive interventions will target these components of the model; ^ = behavioural interventions will target these components of the model.

thus conjures a mental representation of how they are perceived by this audience. Awareness of the audience and attempts to imagine perceptions of this audience causes the individual to allocate their attention to inform this mental representation, and to become aware of any external indicators of negative evaluation (Rapee & Heimberg, 1997). In support of this notion, there is extensive literature to suggest that individuals with SAD show an attentional bias towards angry faces during visual probe tasks, which is absent in controls (e.g. Mogg, Philippot & Bradley, 2004). Furthermore, individuals with SAD who undertake attention training using a visual probe task show a significant decrease in their SAD symptoms (Schmidt, Richey, Buckner & Timpano, 2009). This evidence supports that attentional bias, as described in Rapee and Heimberg's model (1997), is a maintaining factor of SAD.

Rapee and Heimberg (1997) describe that the mental self- representation which the individual holds is compared to what the individual believes to be the audience's expectation of them. In favour of this proposition, research suggests that individuals with SAD tend to estimate their social performance to be poorer in situations where they believe others' expectations of them are high or ambiguous (Moscovitch & Hofmann, 2007). The model also portrays the individual as assessing the probability and consequences of being evaluated negatively by the audience due to their supposed poor social performance (Rapee & Heimberg, 1997). Individuals with SAD have a distorted estimation of social costs associated with poor social performance; decreases in social cost estimations are associated with a reduction in SAD symptoms, suggesting that perception of negative consequences of social mistakes are an important factor in maintaining SAD (Hofmann, 2004).

This perceived negative evaluation triggers physical, behavioural and cognitive symptoms of anxiety in the individual which interact to exacerbate one

another (Rapee &Heimberg, 1997). Simultaneously, these symptoms contribute to the mental representation of the self through internal cues and external indicators of negative evaluation (Rapee & Heimberg, 1997). Within the cognitive-behavioural framework proposed by Rapee and Heimberg (1997), the anxiety responses (physical, behavioural, and cognitive) serve as maintaining factors. The authors indicate that changing these factors may disrupt the cycle of excessive social anxiety (Rapee & Heimberg, 1997). There are several techniques commonly used to alter the maintaining factors of SAD: psycho-education, cognitive restructuring, and exposure therapy (see Appendix B fora description of these interventions).

Efficacy of Cognitive Behaviour Therapy for Social Anxiety Disorder. Best practice treatment for both adults and children with SAD is considered to be individual Cognitive Behaviour Therapy (CBT; National Institute for Health and Care Excellence [NICE], 2013). The evidence for the use of CBT for SAD is relatively strong; meta-analyses of CBT efficacy studies tend to indicate large effects (*d*=1.16; Norton & Price, 2007). There is some evidence to suggest that exposure therapy produces a slightly larger effect (*d*= 1.53) than cognitive therapy (*d*= 1.03), or combined cognitive behavioural treatment (*d*= 1.16; Norton & Price, 2007), however results are inconsistent with classic studies finding that the combination of exposure and cognitive therapy is more effective than either therapy administered alone (Mattick, Peters & Clark, 1989). Meta-analyses of effectiveness studies also demonstrate large effects, ranging from 0.90 to 1.04 (Hans & Hiller, 2013; Stewart & Chambless, 2009), indicating that CBT effectively reduces symptoms of SAD. In revision of the available studies, it should be noted that the manner in which 'cognitive- behavioural therapy' is defined or delivered may differ. Many studies place emphasis on either cognitive interventions or behavioural interventions, and

some may include social skills training, relaxation or breathing retraining (e.g., Clark et al., 2006; Herbert, Rheingold & Goldstein, 2002), and thus may restrict the conclusions which can be validly drawn from available literature.

While CBT is regarded as the most effective, evidence-based treatment for SAD, CBT for SAD tends to demonstrate a lower effect size (e.g. *d*=0.90; Hans & Hiller, 2013) than is generally seen in other anxiety and related disorders including panic disorder (*d*= 1.50), posttraumatic stress disorder (*d* = 1.91), and obsessive-compulsive disorder (*d*= 1.46; Hans & Hiller, 2013). Further, rates of attrition in studies of CBT for SAD have been found to be up to 85% (Coles, Turk, Jindra, & Heimberg, 2004), indicating that a high number of clients may not complete treatment. Considering its prevalence, impact on the patient, and cost to society, investigating the circumstances in which CBT is most effective is of great clinical importance.

Cognitive-behavioural treatment options for social anxiety disorder.

Standard individual treatment. Standard treatment is administered individually in 12 to16 weekly one hour sessions (NICE, 2013). This course of treatment is estimated to be completed over approximately four months (NICE, 2013). There have been several attempts to maximise the efficacy of CBT for SAD by altering the format in which it is delivered by: a) providing CBT in a group format; b) increasing or reducing the number of treatment sessions; c) altering the length of sessions; and d) reducing or increasing the total treatment period. Table 1 provides a summary of experimental studies of 'standard' treatment in individual and group format, and any treatment that differs from the standard 12-16 weekly session format. Most of the research to date has altered more than one variable, and thus it is difficult to differentiate the effect on treatment outcomes which each component provides.

Table 1

Summary of Research: Cognitive Behavioural Therapy for Social Anxiety Disorder

Treatment	Author (date)	*N* (% drop out)	Frequency of Contact	Treatment Hours	Session Length	No. of sessions	Total Treatment length	Effect Size (*g*)	
								Post-treatment	Follow-up (period)
Standard									
Individual									
	Strangier et al. (2003)	24 (8%)	1 session/ week	15 hours	1 hour	15	15 weeks	1.77	2.34 (6 months)
	Herbert et al. (2004)	15 (7%)	1 session/ week	12 hours	1 hour	12	12 weeks	1.07	0.91 (4.5 months)
	Clark et al. (2006)	21 (9.5%)	1 session/ week	21 hours	90 minutes	14	14 weeks	1.25	1.45 (1 year)
	Mörtberg et al. (2007)	29 (3%)	1 session/ week	17 hours	60-90 minutes	16	16 weeks	1.62	1.89 (1 year)
Group									
	Strangier et al. (2003)	26 (15%)	1 session/ week	24 hours	2 hours	12	12 weeks	0.60	0.86 (6 months)

Altered									
	Individual								
		Herbert et al. (2004)	19 (42%)	1 session/ week x 6 + 1 session/ fortnight x 6	12 hours	1 hour	12	18 weeks	0.64	0.58 (3 months)
		Scholing & Emmelkamp (1993)	30 (17%)	2 sessions/ week	16 hours	1 hour	16	12 weeks	0.26	0.76 (3 months)
	Group								
		McEvoy (2007)	153 (18%)	1 session/ week	28 hours	4 hours	7	7 weeks	0.80	N/A
		Herbert et al. (2002)	26 (19%)	1 session/ week	12 hours	2 hours	6	6 weeks	0.33	1.22 (3 months)
		Mörtberg et al. (2007)	29 (10%)	2 sessions/ day	41 hours	2-3 hours	16	3 weeks	0.79	0.99 (1 year)
		Mörtberg et al. (2006)	13 (8%)	2 sessions/ day	41 hours	2-3 hours	16	3 weeks	0.53	0.81 (1 year)

Note. N/A= not assessed

Although not extensively reviewed for the purpose of this study, the 'standard' treatments summarised in Table 1 produce effects sizes between 0.60 and 1.77 at post-treatment, and 0.86 and 2.34 at follow-up. As displayed in Table 1, individual therapy using 12 to 15 one hour sessions provides large effect sizes (*d*=1.07-1.77; Herbert et al., 2004; Strangier et al., 2003). Slightly longer sessions (90 minutes) produce comparable effect sizes (*d*= 1.25-1.62; Clark et al., 2006; Mörtberg et al., 2007), but require more clinician time in total (e.g. 17 or 21 hours). The research regarding group and altered CBT for SAD is discussed in depth below.

Standard group treatment. The comparison of group and individually administered treatment is one of the most researched alterations in the delivery of CBT for SAD. Group treatment appears to produce slightly lower effect sizes (e.g. *d*= 0.60; Stangier, Heidenreich, Peitz, Lauterbach & Clark, 2003). Strangier et al. (2003) conducted a randomised control trial (RCT) of individual CBT, group CBT, and a wait-list control group. It was reported that, overall, individual therapy was more effective than group therapy with 50%, compared to 13.6% of clients, no longer meeting criteria for SAD following treatment (Stangier et al., 2003). The mean effect size for the social anxiety measures (Social Phobia Anxiety Inventory, Social Phobia Scale, and Social Interaction Anxiety Scale) was larger for individual CBT in comparison to group CBT at post-treatment (*d*=1.17 vs. 0.55) and six month follow-up (*d*=1.57 vs. 0.74; Stangier et al., 2003). Several other factors which may have affected outcomes, such as the number of therapist hours per participant (12 hours for group, 15 hours for individual) and the length of sessions (2 hours for group, 1 hour for individual), also differed between the group and individual administration. Thus it is difficult to draw conclusions from this study about the effect of group or individual formats on treatment outcomes.

Group programs offer an option to reduce the time and costs associated with treatment for SAD. However, given the nature of SAD, there is a risk that many individuals with more severe symptoms will not present to group programs or will withdraw from treatment prematurely. Consistent with this hypothesis, Mörtberg, Clark, Sundin and Åberg Wistedt (2007) reported a higher drop-out rate in a group treatment condition (23.07%) in comparison to individually-administered treatment (10.71%). Furthermore, group treatments are often not a feasible option in rural and remote settings as they require the accumulation of several individuals with SAD in the same area who are willing to participate in a specific group program when it is scheduled. The commencement of treatment for most individuals would most likely be delayed whilst an appropriate group is formed.

Extending treatment timeline. Herbert, Rheingold, Gaudiano, and Myers (2004) investigated if extending the timeframe in which treatment was given impacted the efficacy of CBT on SAD. Twelve weekly CBT sessions were compared to 12 sessions of CBT over 18 weeks. Standard treatment was found to produce larger effect sizes compared to the extended timeframe (1.07 vs 0.64, at the end of treatment) and results were produced more quickly. Findings suggested that there is no benefit of extended treatment and the authors advised against its use because of a higher dropout rate (42% versus 7%; Herbert et al., 2004).

Reducing treatment timeline: Intensive treatment.

Intensive individual CBT (IICBT). The altered treatment methods summarised in Table 1 portray an apparent lack of experimental studies investigating IICBT. Stoddard, Rosellini, and Hofmann (2008) provided individual CBT in six daily sessions (2-4 hours per session, homework completed on the weekend) over eight days in an open trial with five outpatients with primary diagnosis SAD. Modest

positive change (>15% improvement in symptoms) related to the intervention occurred in four of the five participants, however, only three of the 5 participants maintained this gain at three month follow up. Importantly, all participants' social anxiety remained at a clinical level at post-treatment and at three month follow-up (Stoddard et al., 2008). The authors of this study noted that they do not recommend CBT to be administered in this manner due to poor treatment effects. This study indicates that long treatment sessions administered daily over a short period may be ineffective for outpatients. However, this was a small open trial without a control group, which moderates the conclusions that can be made from this study.

Of the available research, one study (Scholing & Emmelkamp, 1993) reported effect sizes produced by IICBT. Scholing & Emmelkamp (1993) conducted individual CBT with 30 participants. Treatment was delivered twice weekly for four weeks, followed by a four-week period without treatment, then twice weekly for four weeks. A small effect size of 0.26 was reported at post-treatment, and a larger effect (*d=0.*76) when measured three months following treatment. While Scholing and Emmelkamp increased the number of sessions per week, by inserting a treatment-free period between treatment periods, the total treatment length is extended to 12 weeks, which is typical of 'standard' treatment. Therefore, it is unclear if the treatment provided in the study can be deemed 'intensive'. This format may limit the practical benefits of intensive treatment by failing to reduce overall treatment length. Further, the sample used in this group met criteria for social phobia, based on the DSM-III-R, and limited to those who expressed a specific fear of only physical symptoms of anxiety in social situations (Scholing & Emmelkamp, 1993), thus limiting the applicability of the results to individuals with SAD.

Intensive group treatment. Intensive group treatment appears to produce

more promising results, with effect sizes ranging from 0.33 to 0.80 at post-treatment, and 0.91 to 1.22 at follow-up (Herbert et al., 2002). In a benchmarking effectiveness study, McEvoy (2007) increased the length of group therapy sessions (four hours) and reduced the number of sessions (seven weekly sessions). Pre- to post-treatment effect sizes in this format were comparable to standard treatment for SAD (*d*= 0.80 on the Social Phobia Scale (SPS; Mattick & Clarke, 1998), and *d*= 1.0 on the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998). Reliable change was achieved by 51% and 57% of participants on the SPS and SIAS, respectively; clinically significant change was achieved by 32% and 8% on the SPS and SIAS, respectively. This study demonstrates that weekly, long sessions may be as effective as standard treatment, but controlled trials are needed to make firm conclusions. Moreover, attendance of four-hour sessions may be impractical for many individuals.

A shorter timeframe (three weeks) with longer sessions (two and three hour sessions) was found to be moderately effective in another study. Mörtberg, Karlsson, Fyring and Sundin (2006) compared intensive group CBT (IGCBT) to a waitlist control group. Treatment consisted 41 hours of group treatment over three weeks; nine two or three hour blocks in the first week, homework tasks during the second week, and seven two or three hour sessions the third week. Booster sessions were also administered three, six and 12 months following treatment conclusion. At post-treatment, between group effect sizes were small to medium (*d*= 0.37 and 0.53 on the SIAS and SPS, respectively), and medium to large at 12-month follow-up (*d* = 0.77 and 0.81 on the SIAS and SPS, respectively). These results suggest that IGCBT is moderately effective for SAD; however effect sizes are smaller than standard CBT.

In a similar study, Mörtberg, Clark, Sundin and Åberg Wistedt (2007), compared the effectiveness of IGCBT using the same treatment plan as the above

study (16 sessions over three weeks), standard individual CBT (16 weekly sessions) and 12-month drug treatment. All treatments produced a reduction in symptoms; at four month follow-up IGCBT treatment (d = 0.96) was found to be as effective as SSRI treatment (d= 0.89), but less so than standard individual CBT (d = 1.81). The individual CBT condition also had the lowest dropout rate (10.71%, compared with 23.07% for the group condition and 50% for the SSRI condition). The results of this study suggest that IGCBT produces large effect sizes at four months following treatment cessation; however standard individual CBT provides larger effects.

In summary, the research to date suggests that CBT administered daily in long sessions (i.e. two to four hours per day (Stoddard et al., 2008); seven hours per day (Mörtberg, Karlsson, Fyring & Sundin, 2006; Mörtberg, Clark, Sundin & Åberg Wistedt; 2007) is less effective than standard CBT. However, long sessions delivered weekly appear more effective (McEvoy; 2007). This discrepancy may be due to insufficient time to practice skills in between sessions. Further, much of the literature is limited by small sample sizes, and lack of comparison groups.

The value of intensive treatments is evident, given reduced treatment time, a lower drop-out rate, and provision of additional treatment options, but positive results of intensive CBT in groups is limited. Often individual treatment has been found to be a superior format to group treatment for standard CBT (Stangier, Heidenreich, Peitz, Lauterbach, & Clark, 2003) and may maximise the relevancy IICBT to rural and remote contexts. However, there research on IICBT for SAD is limited.

Aims of the current research

Given the lack of clarity in the current research on intensive cognitive behavioural treatments for SAD, this area warrants further research. Therefore, the

aim of the current study is to investigate the plausibility of IICBT in the format of three weekly sessions over four weeks as a treatment option for outpatients with SAD. It is hypothesised that: 1) participants' scores on primary and secondary outcome measures will be significantly lower at post-treatment, in comparison to pre-treatment scores; 2) improvement on the SAD symptom measures will produce large effect sizes; and 3) participants will maintain gains at three month follow-up.

Method

Participants

Eight participants (Mean age = 28 years, *SD* = 9.83; 87.5% female) with a primary diagnosis of SAD completed the study. Table 2 outlines participant demographics at pre-treatment. Individuals were recruited through the University of Tasmania Psychology Clinic, and from the general population in Hobart, Tasmania, via flyers (See Appendix C) and a newspaper advertisement (see Appendix D). As SAD typically develops in adolescence (Kessler, Berglund, Demler, Jin, Merikangas & Walters, 2005), recruitment targeted individuals aged 14 and over. All participants were required to read and write in English and to provide informed consent. To mimic natural distribution of help-seeking individuals with SAD there was no explicit gender ratio aimed for in the sample. Exclusion criteria included inability to attend three treatment sessions per week, for four weeks, prior non-responsiveness to an adequate course of CBT for SAD, and moderate to severe suicidal ideation. The latter criterion was included because sessions beyond those included in the procedure would be required to provide adequate care. Participant flow can be seen in Figure 2.The study was approved by the Tasmania Social Sciences Human Research Ethics Committee (H14034; see Appendix E) and was registered with the Australian and New Zealand Clinical Trials Registry (ANZCTR; ACTRN12614000888662).

Table 2

Participants' Demographic Information

Participant No.	Age	Gender	Ethnicity	Co-morbid conditions	No. of sessions attended	Assessments completed		
						Treatment	Post	Follow-up
1	19	Female	Asian/Caucasian	PMDD; MDD (single episode, in full remission)	3	N	N	N
2	29	Female	Asian	-	8	Y	P	N
3	20	Female	Caucasian	Bipolar II	12	Y	Y	Y
4	21	Female	Caucasian	MDD (in full remission)	10	Y	Y	P
5	23	Female	Caucasian	MDD (recurrent episodes)	12	Y	Y	Y
6	26	Female	Caucasian	GAD, MDD (recurrent episodes, in partial remission)	12	Y	Y	Y
7	42	Female	Caucasian	MDD (in full remission)	12	Y	Y	Y
8	44	Male	Caucasian	PD, GAD, PDD	11	Y	Y	Y

Note. PMDD = Pre-menstrual dysphoric disorder; MDD= Major depressive disorder; GAD= Generalised anxiety disorder; PD= Panic disorder; PDD= persistent depressive disorder; N= No; Y= Yes; P= Partly Completed.

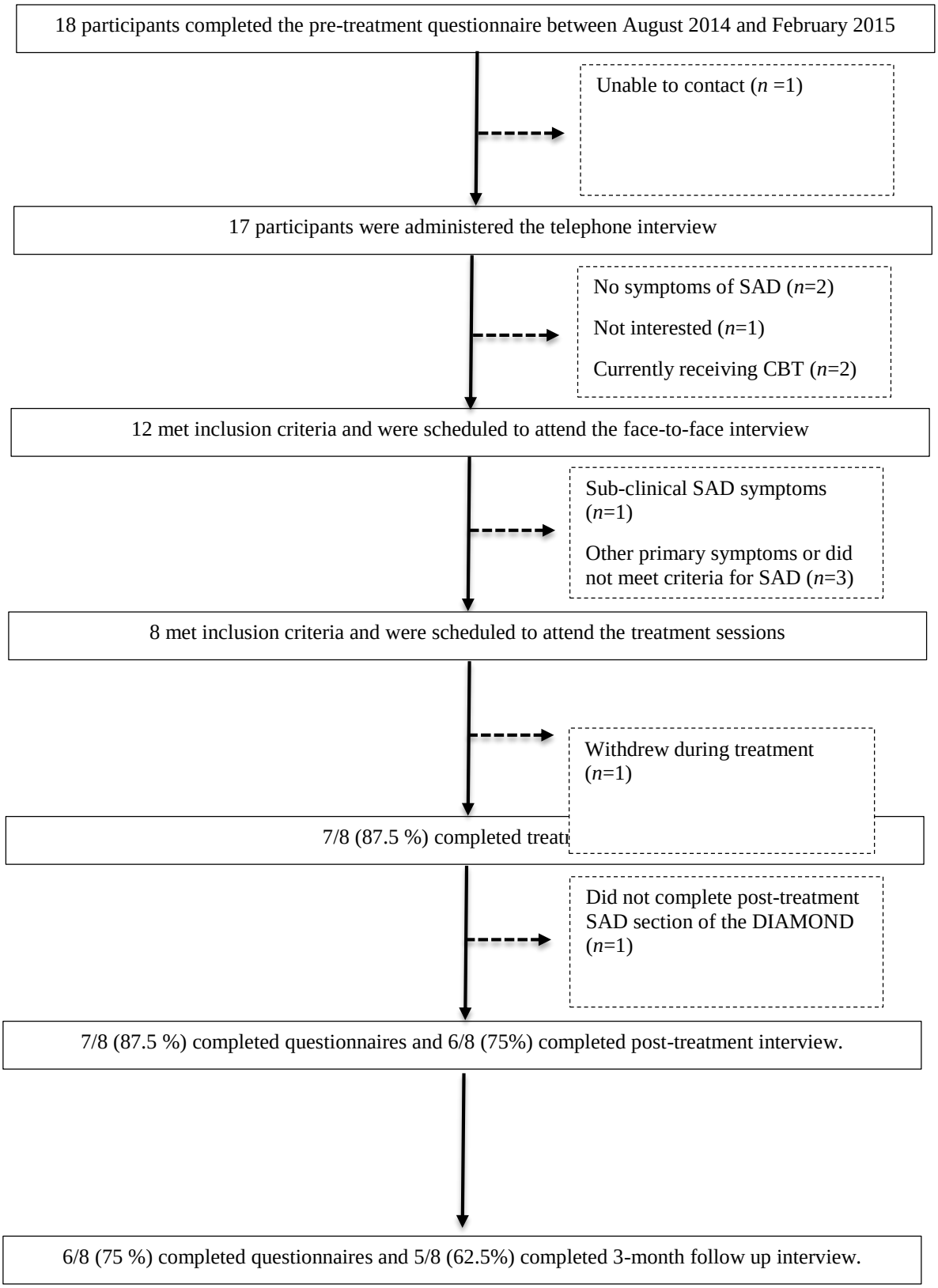

Figure 2. Participant Flow Diagram. SAD = social anxiety disorder; CBT = cognitive behavioural therapy; *n*= number of participants.

Materials

Measures.

The Diagnostic Interview for Anxiety, Mood, and OCD and related Neuropsychiatric Disorders (DIAMOND; Tolin et al., 2013). Diagnostic status was assessed in a face-to-face interview, using the DIAMOND, a newly developed clinician-administered diagnostic interview. The measure also includes a short, 30-item screening tool. While the reliability of the DIAMOND is still under evaluation preliminary analyses indicate that the SAD diagnosis has an inter-rater reliability of .68 and test retest reliability of .88 (Gilliam et al., 2014).

Columbia-Suicide Severity Rating Scale (C-SSRS; Posner et al., 2008). Current suicide risk was screened for using the C-SSRS. This measure demonstrates strong predictive validity for adolescent and adult suicide risk (Posner et al., 2011). In terms of specificity and sensitivity, the C-SSRS is consistent with the Columbia Suicide History Form and independent clinician-based assessment of suicidality (Posner et al., 2008). Good sensitivity to change is demonstrated, as seen by correlation with changes in the Scale for Suicide Ideation (Beck, Kovacs & Weissman, 1979), and the intensity subscale has been found to be internally consistent (α =0.73; Posner et al., 2008).

Demographic questionnaire. Questions addressing the age, gender, and ethnicity of participants were presented as part of the pre-treatment questionnaire. See Appendix F for the complete demographic questionnaire, which was constructed for the purposes of the study.

Social Phobia Inventory (SPIN; Connor et al., 2000). The SPIN contains 17 items on which the responder rates how much social anxiety symptoms have troubled them over the past week on a five-point Likert scale (*not at all* to

extremely). The SPIN provides a total score (ranging from zero to 68) and a total score over 19 has been found to signify clinical levels of social anxiety (Connor, Davidson, Churchill, Sherwood, Weisler & Foa, 2000). Overall, the test has demonstrated good psychometric properties in previous studies, with an internal consistency of .92, and a test-retest reliability of $r = .86$ ($p<.001$) after a one to three-week interval (Antony et al., 2006). Discriminant and convergent validity is also strong; the SPIN is not significantly correlated with the Anxiety Sensitivity Index (ASI; Peterson & Reiss, 1993; $r=.12$, $p>.05$) or the Depression Anxiety and Stress Scale (DASS; Lovibond &Lovibond, 1995; Depression ($r=-.03$), Anxiety ($r=-.03$), Stress ($r=.10$; Antony et al., 2006), and significant correlations were found with the SPS ($r=.71$) and SIAS ($r=.60$; Antony et al., 2006). In terms of treatment sensitivity, the SPIN was comparable to the SPS and SIAS (Antony et al., 2006).

The Mini Social Phobia Inventory (Mini-SPIN; Conner et al., 2000). To assess treatment progress, participants were required to complete a shortened version of the SPIN (Mini-SPIN; Connor et al., 2000) at the commencement of each session. The Mini-SPIN consists of three questions from the larger SPIN and has been found to hold adequate psychometric properties (Seeley-Wait, Abbott & Rapee, 2009). Discriminant validity between those with and without SAD has been found to be strong using a clinical cut-off score of six (Connor, Kobak, Churchill, Katzelnick, & Davidson, 2001). Strong positive correlations with the SIAS ($r= 0.81$, $p< .001$) and the SPS ($r= 0.77$, $p< .001$) have been found in previous studies, indicating good construct validity (Seeley-Wait et al., 2009). In previous studies, test-retest reliability after 12 weeks is good ($r = 0.70$), and internal consistency between the three items is also adequate ($\alpha = .91$; Seeley-Wait et al., 2009).

The Social Interaction Anxiety Scale (SIAS) and Social Phobia Scale (SPS;

Mattick & Clark, 1998). The SIAS and SPS assess two separate domains of social anxiety disorder: interaction in pairs and groups, and negative evaluation by others, respectively. To obtain a complete picture of social anxiety, the two measures should be used in conjunction (Mattick & Clarke, 1998). The SIAS contains 20 items on which the responder rates the extent to which the statements apply to them on a five-point Likert scale (*not at all* to *extremely*). The SIAS was developed in conjunction with the Social Phobia Scale (SPS; Mattick & Clark, 1998), which also contains 20 items, presented in the same format as the SIAS. Both tests displayed good psychometric attributes when tested with a group of 200 university undergraduates (Osman, Gutierrez, Barrios, Kopper, & Chiros, 1998). Internal consistency was high for both the SIAS (Cronbach's alpha = .90) and SPS (Cronbach's alpha = .91; Osman et al., 1998).

The Sheehan Disability Scale (SDS; Sheehan, 1983). The SDS is a 3-item measure of functional impairment. In a sample of individuals with SAD, the SDS was found to have moderate internal consistency (α= .55), and was somewhat correlated with measures of social anxiety (*r*= .50 and .41, for the SIAS and the SPS, respectively), and subjective quality of life (*r*=-.47; Hambick, Turk, Heimberg, Schneier & Liebowitx, 2004). The SDS was highly correlated (*r*= .70; Hambick et al., 2004) with other measures of disability (e.g. the Liebowitz Self-Rated Disability Scale).

The Depression and Anxiety Stress Scale – 21 Item (DASS-21*;*Lovibond & Lovibond, 1995). The 21-item DASS is derived from a 42-item measure and assesses levels of depression, anxiety and stress (Antony, Bieling, Cox, Enns & Swinson, 1998). Hopelessness, self-esteem, and affect are assessed by the depression subscale. The anxiety subscale measures physiological arousal and feelings of fear. The stress

scale assesses physiological tension, affect, and agitation. Each subscale consists of seven items with a five point Likert scale, on which individuals rate how much the statement has applied to them over the past week. The internal consistency of the DASS-21 is good; Cronbach's alpha has been found to be .94, .87, and .91 for the depression, anxiety, and stress subscales, respectively (Antony et al., 1998).

Acceptability questionnaire. Participants were asked to indicate if they preferred standard treatment (weekly sessions over 12 weeks) or intensive treatment (three sessions per week over four weeks) in the pre-treatment survey (See Appendix J). In the post-treatment survey, participants rated the following questions on a five-point Likert scale from 'not at all' (1) to 'extremely' (5): '*How satisfied were you with the treatment?*', '*How logical was the treatment?*', and '*Was the treatment worth your time?*'. Participants also indicated on a dichotomous scale if they would recommend the treatment to a friend. See Appendix O for acceptability questionnaire.

The primary outcome measure in the current study was the SPIN and the secondary outcome measures were the Mini-SPIN, SIAS, SPS, DASS-21 and SDS. Measures were administered at pre-treatment, post-treatment, and three months following treatment conclusion, with the exception of the Mini SPIN, which was administered at the commencement of each treatment session.

Treatment materials. Treatment was based on an IICBT manual which was created specifically for the purpose of this study. This manual utilises established techniques for cognitive and behavioural interventions from a multitude of sources (Beck, 1964; Beck, Rush, Shaw & Emery, 1979; Bennett-Levy, Butler, Fennell, Hackmann, Mueller & Westbrook, 2004; De Oliveira, 2012; Greenberger & Padesky, 1995; Padesky & Mooney, 1990), and includes reading materials for

participants and worksheets used to complete at-home assignments in between sessions. See Appendix G for the complete treatment manual.

Procedure

Recruitment. Recruitment flyers (see Appendix C) containing a website link to the online screening tool were distributed throughout the University of Tasmania Sandy Bay Campus. A newspaper advertisement in a Hobart newspaper was also used for recruitment (Appendix D).

Online screening procedure. Potential participants were initially screened through a secure online website hosted by Limesurvey (Schmitz, 2012). Participants were presented with an online participant information sheet (Appendix H) and an online consent form (Appendix I). Interested and consenting participants then completed a short demographic questionnaire (as described above; see Appendix F), the SPIN, SIAS, SPS, DASS-21, SDS and the DIAMOND Screening Tool. Participants were also required to provide their first name and a contact phone number and a suitable time for researchers to conduct a telephone interview if they wished to participate. See Appendix J for the full pre-treatment screener.

Telephone screening procedure. Following completion of the online screening tool, participants were contacted by the researchers via telephone. A 15-minute telephone conversation was conducted in order to answer any of the participants' questions about the study, to ascertain whether the participant was likely to be experiencing symptoms of social anxiety and was able to attend treatment sessions, the nature of any previous or current treatment, and to book an initial intake assessment. See Appendix K for a script used to guide the interview.

Initial intake assessment. Participants met with a provisional psychologist/student researcher, at the university clinic for an initial intake session

prior to the commencement of the treatment. Written informed consent was obtained from participants at this stage (see Appendix L). The researcher then conducted the DIAMOND with the participant, beginning with the SAD module (see Appendix M). Suicide risk was also assessed, using the CSSR-S to guide questions about suicidal ideation, intent and behaviour. If a participant was found to have moderate to severe suicide risk, did not meet criteria for a diagnosis of SAD, or had significant comorbid issues which required attention, they were referred on to appropriate treatment services (see Appendix N for suicide risk action flow chart). Participants who met all inclusion criteria were scheduled for treatment sessions.

Treatment. Treatment involved 12 treatment sessions delivered over four weeks (three sessions per week; Monday, Wednesday, Friday). Participants were also required to complete homework following each session. The content and timeline of the treatment sessions are outlined in Table 3. See Appendix G for the treatment manual used, including scripts and handouts for each session.

Post-treatment assessment. At the completion of session 12, the SAD section of the DIAMOND was administered by the therapist. The participant also completed the SPIN, SPS, SIAS, SDS, DASS-21, and three questions about treatment satisfaction (see Appendix O) on a computer provided to them. A follow-up appointment was scheduled for approximately three months after the final session.

Three month follow-up assessment. The three month follow-up assessment consisted of a phone call to the participant in which the SAD section of the DIAMOND was administered by the therapist. The participant then completed a follow-up survey consisting of the SPIN, SPS, SIAS, SDS, and the DASS-21, using a link provided to them via email.

Table 3

Outline of Treatment Sessions.

Week	Session	Focus
1	1	Psycho-education
	2	Cognitive restructuring (automatic thoughts)
	3	Cognitive restructuring (automatic thoughts)
2	4	Cognitive restructuring (core beliefs)
	5	Behavioural Experiments
	6	Behavioural Experiments
3	7	Behavioural Experiments
	8	Behavioural Experiments
	9	Behavioural Experiments
4	10	Behavioural Experiments (highest anxiety level)
	11	Behavioural Experiments
	12	Relapse Prevention

Data Cleaning and Analysis

Data was collected via Limesurvey at pre- treatment, post- treatment, and follow-up. An *apriori* power analysis using G*Power (Faul, Erdfelder, Lang & Buchner, 2007) was conducted to determine sample size. Based on a previously reported effect sizes of .90 (Hans & Hiller, 2013), and setting power to .80 ($\alpha = .05$), a sample size of 10 would provide sufficient power to detect an effect, however recruitment was aimed at 15 participants in order to hedge against attrition. Unfortunately, the recruitment target was not met and the final sample for the current study was eight. Based on *post-hoc* power analysis using G*Power (Faul et al.,

2007), a sample size of eight was deemed sufficient to pool data for effect sizes greater than 1 (α= .05; power = .80). For this reason, the data reported is based on individual outcomes and by pooling data. For pooled data, the intention to treat (ITT) sample is reported, where previous score was carried forward (last observation carried forward; LOCF method), as this provides a more conservative estimate of treatment effects.

This data was cleaned by excluding incomplete responses, and pre-treatment data for participants who were not accepted into the study. Formulae were used to calculate a participant score for the SPIN, SPS, SIAS, DASS-21 (Depression, Anxiety, and Stress subscales), and the SDS (family, work, and social subscales) at each time point. Reverse score items in the SPIN were manually calculated. All analyses were conducted using IBM SPSS Statistics 21. There were no scores identified as falling more than ±3 SDs from the mean (Tabachnick & Fidell, 2007), and thus no outliers were removed. At each timepoint (pre-treatment, post-treatment, and follow-up), all variables met normality assumptions as assessed using the Shapiro- Wilk test of normality, with the exception of the pre-treatment DASS-21 Stress scale and SDS Social scale, and the follow-up SDS work and social subscale. These four variables were transformed by calculating a log of the data; transformed data met assumptions. A Wilcoxin Signed Ranks Test (Wilcoxin, 1945) was run in place of a *t*-test in analyses using these variables.

To address hypotheses one and three, paired samples *t*-tests were used to compare participants' scores on the outcome measures at pre- and post-treatment, and at pre-treatment and three month follow-up. To test hypothesis two, effect sizes (Hedges' *g*) were calculated for the change on each outcome measure between pre- and post-treatment. Effect sizes are calculated using the following formula: Hedges'

$g = \frac{M_1 - M_2}{SD_{pooled}}$; where $SD_{pooled} = \sqrt{\frac{(n_1-1)SD_1^2 + (n_2-1)SD_2^2}{(n_1+n_2)-2}}$, *n* is the sample size of the group, *M* is the mean, *SD* is the standard deviation, and 1 and 2 refer to the groups (pre, post, or follow-up; Hedges, 1981).

Reliable change was calculated for each participant and was determined using the Edwards-Nunnally Corrected Reliable Change Index, where confidence intervals equal two *SD*s (Speer, 1992). This method is designed to limit overestimation of improvement by accounting for regression to the mean (Speer, 1992). Diagnostic change was based on the percentage of participants who met criteria for SAD according to the DIAMOND at post-treatment and follow-up. Acceptability of the treatment was assessed by calculating the mean scores on acceptability questions.

Results

Attrition

Participant flow is outlined in Figure 2. One of the eight (12.5%) participants withdrew during treatment due to time constraints. Appendix P provides information on the assessments completed by each participant.

Pooled Data – Intent to Treat Sample.

Short-term outcomes. Table 4 displays the pooled means, standard deviations and effect sizes (Hedges' g with 95% confidence interval (CI) for each outcome measure at pre-treatment, post-treatment, and follow up. As indicated in Table 4, large within-group pre-treatment to post-treatment effect sizes were found for the SPIN, SIAS, SPS, DASS-21 Depression subscale, SDS Social subscale, and SDS work/school subscale. A moderate effect size was found for the DASS-21 Anxiety and Stress subscales, and the SDS Family subscale. Significant differences between pre-treatment and post-treatment scores were found on the SPIN (t (7) = 3.95, p = .006, 95% CI [5.67, 22.59]), and the SIAS (t (7) = 2.40, p = .048, 95% CI [0.19, 29.80]).

Table 4

Means, Standard Deviations and Effect Sizes at Pre-Treatment, Post-Treatment and Follow-Up Assessment for the Intent-to-Treat Sample

Measure	*N*	Pre-treatment mean (*SD*)	Post-treatment mean (*SD*)	Pre- to post-treatment ES (*g)* (95% CI)	Follow-up mean (*SD*)	Pre-treatment to follow-up ES (*g)*(95% CI)
SPIN	8	47.88 (6.49)	33.75 (9.53)	1.61 (0.48-2.74)	26.13 (13.27)	1.94 (0.75-3.12)
SIAS	8	57.38 (4.07)	42.38 (16.82)	1.14 (0.08-2.2)	34.63 (13.11)	2.18 (0.94-3.42)
SPS	8	47.00 (11.01)	32.50 (15.72)	0.99 (-0.04-2.03)	23.63 (14.38)	1.70 (0.55-2.84)
DASS (depression)	8	10.50 (5.29)	6.50 (4.00)	0.80 (-0.22-1.82)	7.5 (4.24)	0.58 (-0.42-1.58)
DASS (anxiety)	8	10.13 (4.02)	6.75 (3.85)	0.79 (-0.22-1.81)	4.38 (3.46)	1.43 (0.33-2.52)
DASS (stress)	8	12.50 (4.63)	9.38 (5.26)	0.59 (-0.42-1.59)	7.75 (4.37)	0.98 (-0.06-2.02)
SDS (Social)	8	8.88 (0.64)	6 (2.673)	1.38 (0.29-2.47)	4.63 (3.38)	1.63 (0.50-2.76)
SDS (work/school)	8	7.88 (1.55)	4.5 (1.93)	1.80 (0.64-2.96)	2.38(2.56)	2.42 (1.13-3.70)
SDS (family)	8	4.38 (2.88)	2.63 (2.07)	0.65 (-0.36-1.66)	2.00 (1.69)	0.94 (-0.09-1.97)

Note. N= number of participants; *SD*= standard deviation; ES= effect size; CI= confidence interval; SPIN= Social Phobia Inventory; SIAS= Social Interaction Anxiety Scale; SPS= Social Phobia Scale; DASS= Depression, Anxiety, Stress Scale – 21; SDS= Sheehan Disability Scale.

There was also a significant difference in the SDS social (z = 2.52, *p* = .012) and work subscale (*t* (7) = 3.44, *p* = .011, 95% CI [1.06, 5.70]), and the DASS-21 Stress subscale (z= 2.52, *p*=.012). Pre-treatment and post-treatment measures on the SPS, the DASS-21 anxiety and depression subscales, and the SDS family subscale were not significantly different (*p* >.05).

Long-term outcomes. Scores on the primary outcome measures at three month follow-up were significantly lower than pre-treatment scores on the SPIN: *t*(7)=5.35, *p*=.001, *g*= 1.94, 95% CI [0.75-3.12]; the SIAS: *t*(7)= 4.60, *p*=.002, , *g*=2.18, 95% CI [0.94-3.42]; and the SPS: *t*(7)=4.85, *p*=.002, *g*=1.70, 95%CI [0.55-2.84]. Further, significant reductions between pre-treatment and follow-up scores were found on all subscales of the DASS-21: Anxiety: *t*(7)=3.23, *p*=.01, *g*= 1.43, 95% CI [0.33-2.52]; depression: *t*(7)=3.76, *p*=.028, *g*= 0.58, 95% CI [-0.42-1.58]; and stress: z= -2.52, *p*=.012, *g*= 0.98, 95% CI [-0.06-2.02]. There were also significant differences between pre-treatment and follow-up measures on the Sheehan Disability Scale School/work subscale (z= 2.52, *p*=.01, *g*= 2.42, 95% CI [1.13-3.70]), Social subscale (z=-2.38, *p*=.02, *g*= 1.63, 95% CI [0.50-2.76]), and Family subscale (*t* (7) =2.75, *p*=.03, *g*= 0.84, 95% CI [-0.09-1.97]). Figure 3, Figure 4, and Figure 5 portray the mean pre-treatment, post-treatment and follow-up scores of the outcome measures.

Individual scores. Appendix Q shows individual pre-treatment, post-treatment and follow-up scores for each participant on each of the outcome measures. On the SPIN, zero of the eight participants (0%) attained a score below the cut-off of 19 at pre-treatment, in comparison to 1/8 (12.5%) at post-treatment and 3/8 (37.5%) at follow-up. Zero of eight (0%) scores on the SIAS were below the clinical cut-off (36) at pre-treatment, 3/8 (37.5%) at post-treatment, and 5/8 (62.8%) at follow-up.

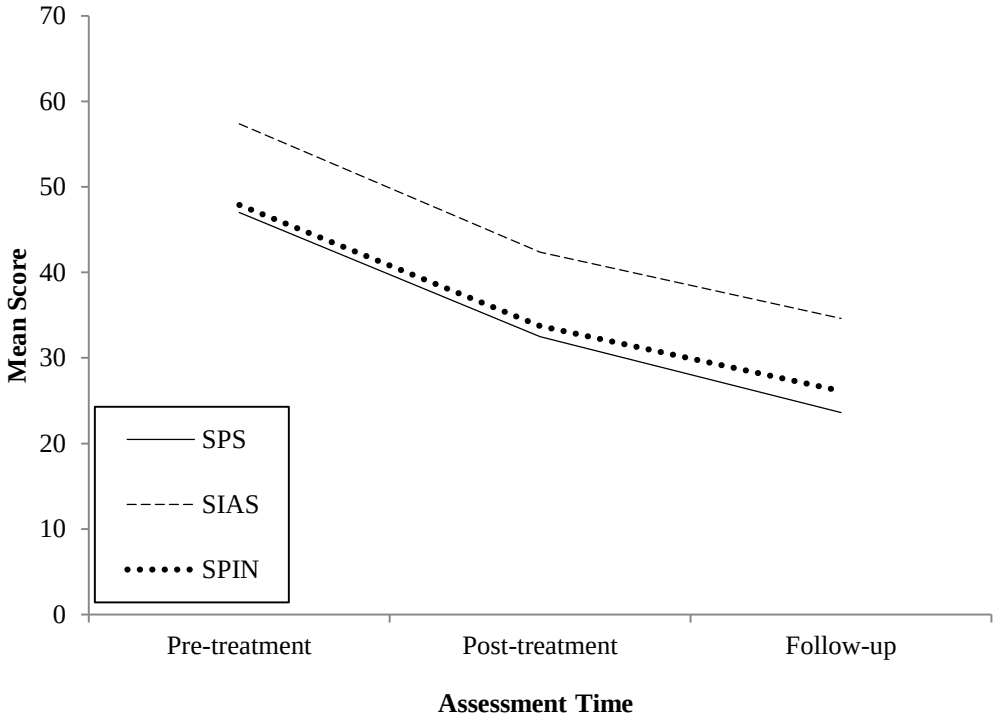

Figure 3. Mean SPIN, SIAS and SPS Scores at Pre-Treatment, Post-Treatment and Follow-up Assessments. SPIN= Social Phobia Inventory; SIAS= Social Interaction Anxiety Scale; SPS= Social Phobia Scale.

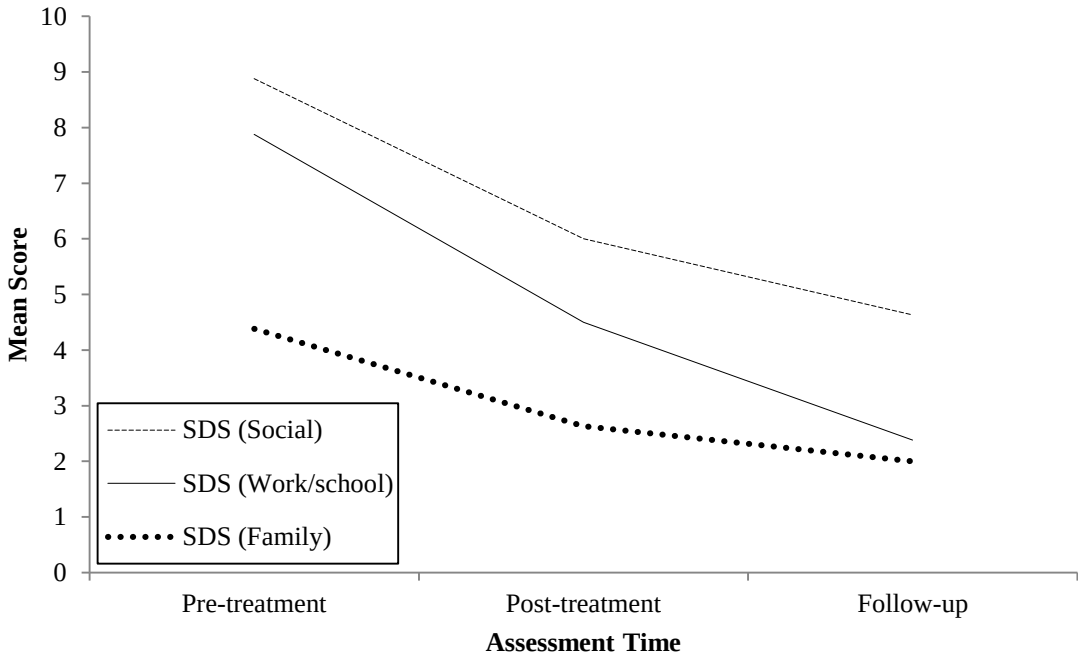

Figure 4. Mean SDS Scores at Pre-Treatment, Post-Treatment and Follow-up. Assessment. SDS = Sheehan Disability Scale.

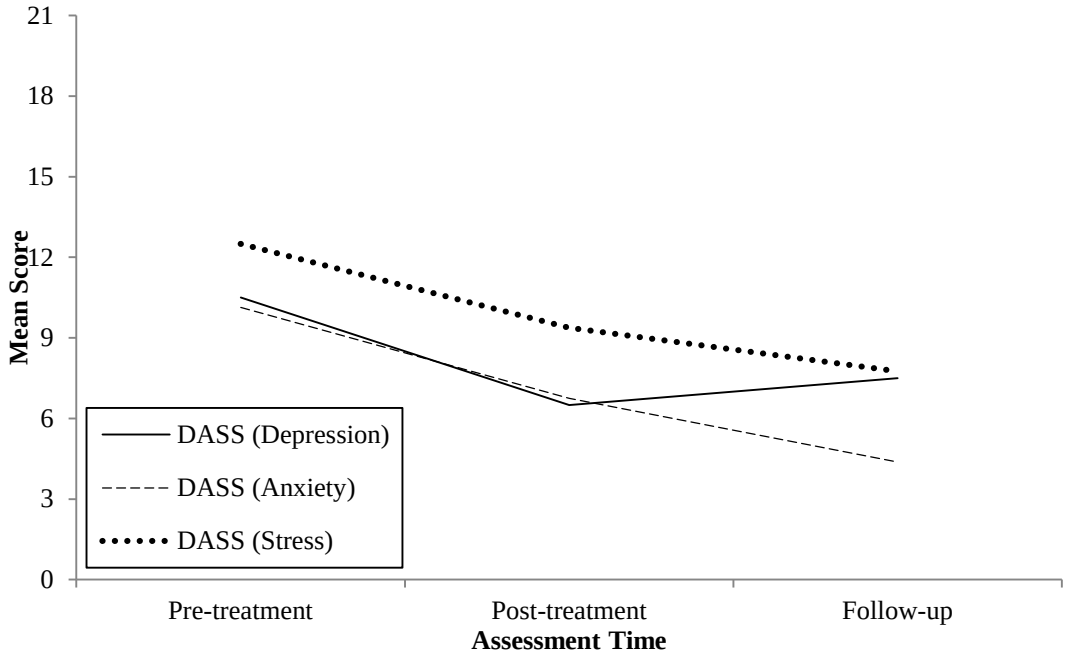

Figure 5. Mean DASS-21 Scores at Pre-Treatment, Post-Treatment and Follow-up Assessment. DASS-21= Depression, Anxiety, Stress Scale (21-item).

The SPS scores were below the clinical cut-off of 26 at pre-treatment for 0/8 (0%) participants, 3/8 (37.5%) at post-treatment, and 6/8 (75%) at follow-up. Of the completer sample (*N*= 7), six (85.7%) met reliable change on the SPIN, seven (100%) on the SIAS, and five (71.4%) on the SPS at post-treatment. Of six participants who completed three month follow up, 6 (100%), 6 (100%), and 6 (100%) met reliable change criteria on the SPIN, SIAS, and SPS, respectively.

The Mini-SPIN was administered at the commencement of each therapy session. Five of the eight participants (62.5%) gained a Mini-SPIN score below the clinical cut-off of six during treatment. Figure 3 shows the mean Mini-SPIN score for pre-treatment, each session, and follow-up. The completer sample attended

between 8 to 12 sessions (66.67%-100%; *M* =11, *SD*=1.53; 91.67%).

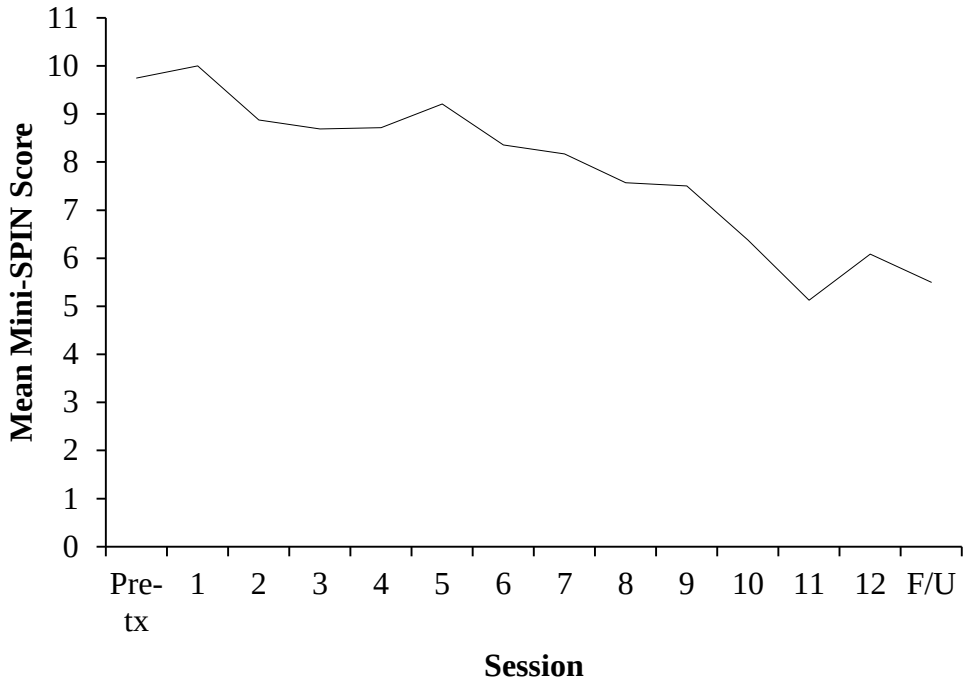

*Figure 6.*Mean Mini-SPIN Scores over the course of treatment. Pre- tx = pre-treatment assessment; F/U= three month follow-up assessment.

Diagnostic Change

According to the DIAMOND (Tolin et al., 2013), five (83.33%) of the six participants who completed the post-treatment interview no longer met criteria for SAD. At three month follow-up, five (100%) of the five who completed the interview no longer met criteria. The one participant who met criteria at post-treatment did not meet criteria at follow-up. Using an ITT sample, 62.5% of the participants would no longer meet criteria for SAD at post-treatment; 75% would not meet criteria at three-month follow-up.

Acceptability

At pre-treatment, participants were asked about treatment preferences and 5/8 (62.5%) indicated a preference for intensive treatment over standard treatment. Acceptability of the treatment was assessed at post-treatment. All participants (bar

one who did not complete treatment or the post-treatment survey) reported that they would recommend the treatment to a friend. Participants rated the following questions on a five-point Likert scale from *'not at all'* (1) to *'extremely'* (5): 'How satisfied were you with the treatment?', 'How logical was the treatment?', and 'Was the treatment worth your time?'. Mean scores were 4.43 (*SD*= 0.79), 4.71 (*SD*= 0.49), and 4.57 (*SD*= 0.53), respectively, indicating that the treatment was deemed acceptable by the participants.

Discussion

The purpose of the current study was to study the efficacy of IICBT for SAD. The treatment consisted of three, one hour therapy sessions per week over a four week period. Therapy was conducted on an individual basis and involved psycho-education, restructuring of automatic thoughts and core beliefs, and in-vivo exposure components. Diagnostic status was measured using a structured clinical interview (DIAMOND, Tolin et al., 2013), and social anxiety symptomatology was measured using the SPIN, SPS, and SIAS. General disability was measured with the SDS, and the DASS-21. It was hypothesised that scores on the SPIN, SPS, SIAS, SDS, and DASS-21 would be significantly lower following treatment, and that the change in scores on the SPIN, SPS, and SIAS would yield large effect sizes. Further, it was expected that these gains would be maintained at three month follow-up.

Findings of the Current Study

The results of this study indicate that all hypotheses were supported. Participants experienced a significant decrease in their social anxiety symptoms following treatment, as demonstrated by large effect sizes on pre- to post- treatment SPIN (g = 1.61), SIAS (g = 1.14) and SPS (g=0.99). Of participants who completed

treatment, 87.5%, 100%, and 71.4%, made reliable change on the SPIN, SIAS, and SPS, respectively, when assessed at post-treatment. When assessed three months after treatment cessation, a larger effect size was found on all social anxiety measures in comparison to the effect reported at treatment cessation; g = 1.94 on the SPIN, g =2.18 on the SIAS, and g= 1.70 on the SPS. Reliable change was achieved by 100% of completers on the SPIN, SIAS, and SPS, at three month follow-up. Further, the therapy appears to have provided long-term improvement in participants' general well-being and impairment, as shown in large and significant effect sizes when comparing the DASS-21 and SDS at pre-treatment and follow-up.

Comparison to existing literature. As previously stated, the existing literature on intensive CBT for SAD is difficult to draw coherent conclusions from because many variables in the treatment delivery often differ between studies (i.e. frequency of contact, total treatment hours, the length of sessions, the number of sessions, the total treatment length, and the length of the follow-up period). The measures used to assess treatment effect also differ. Thus, in making a comparison of the current study and the existing literature, it is difficult to conclude what specifically effect the intensive nature (increasing the frequency of contact and shortening the total treatment length) of the treatment delivered has had. Despite inability to determine which exact variables contribute to effectiveness of interventions, examining the effect sizes in the current literature provides some insight to the most effective method of treatment delivery. It should also be noted that the confidence intervals around the effect size estimates in this study are large, and therefore comparative interpretations are cautiously reported.

The primary SAD symptom measure in the current study was the SPIN, which will be used for comparison to the primary outcome measures used in other

studies. However, direct comparisons will be made to the SPS and SIAS effect sizes when possible. The effects of IICBT for SAD, as demonstrated in this study, compare favourably to other research in this area. In comparison to the average effect sizes found for individual CBT for SAD delivered in a standard manner (weekly), for example *d*=0.90, as reported in a meta-analysis by Hans & Hiller (2013), the post-treatment effect size reported in this study was larger (*d*= 1.61).

Comparisons with standard treatment.

Individual Treatment. Of the studies reviewed, those using individually-administered treatment, provided once weekly, appear to produce the largest effect on SAD symptoms (*d*= 1.07- 1.77 at post-treatment; *d*= 0.91-2.34 at follow-up). In comparison to the current study, Herbert et al.'s 2004 study required the same number of total hours, but delivered treatment weekly over 12 weeks. Effect sizes are comparable, although those found in the current study were slightly larger at post-treatment (1.61 vs. 1.07; current study vs. Herbert et al., 2004), and larger still at follow-up (1.94 vs. 0.91). The low attrition rate found in these studies (3-9.5%; Clark et al., 2006; Mörtberg et al., 2007) is also comparable to the current study (12.5%), and reveals no obvious advantage of either method in terms of attrition.

The largest effect size at post-treatment reported in the reviewed studies was 1.77 following a 15 week period of hour-long, weekly sessions (Strangier et al., 2003). At six months post-treatment cessation this study also found a large effect size (*d*= 2.34; Strangier et al., 2003). In the current study, the effect as reported on the primary measure was slightly smaller in comparison (*g*= 1.61 at post-treatment, and *g* = 1.94 at follow-up). However, Strangier et al. (2003) also assessed participants' SAD symptoms using the SPS (*d*=0.90 at post-treatment; *d*= 1.30 at follow-up) and SIAS (*d*=0.85 at post-treatment; *d*= 1.07 at follow-up). In the current study, the effect

size as measured by the SPS at post-treatment (*g*= 0.99) was similar, and larger at follow-up (*g*= 1.70) than the Strangier et al. (2003) study. Similarly, the effect size on the SIAS reported in the current study was comparatively larger at post-treatment (*g*=1.14) and follow-up (*g*= 2.18). In comparison to the current study, Strangier et al.'s treatment was three sessions longer (15 sessions total), and the follow-up period was twice as long (six months). This indicates that intensive treatment, as presented in the current study, can produce similar effects to standard individual treatment.

Group Treatment. In comparison to group treatment delivered in the standard manner (weekly), treatment in the current study appears superior in the total number of treatment hours (12 vs 24; Strangier et al., 2003), and the effect size produced (*d*=0.60 at post-treatment and 0.86 at follow-up; Strangier et al., 2003), in comparison to *g*=1.61 and 1.94 in the current study).

Comparisons with intensive treatment.

Individual Treatment. Effect sizes have been reported by one study of IICBT (Scholing & Emmelkamp, 1993). The experimental study by Scholing and Emmelkamp (1993), which investigated two individual CBT sessions per week for eight weeks, reported a small effect size at post-treatment (*d*= 0.26) and a medium effect size on SAD symptoms assessed three months after treatment cessation (*d*= 0.76). In comparison, large effect sizes were reported in the current study on all measures of SAD symptoms at post-treatment (*g*= 0.99 – 1.61) and follow-up assessment (*g*= 1.70-2.18). There may be several factors contributing to the lower effect size reported in Scholing and Emmelkamp's study. Firstly, treatment was delivered in twice weekly for four weeks, with a four week interval of no treatment, then again twice weekly for four weeks (Scholing & Emmelkamp, 1993). The authors reported that no treatment gain occurred in the treatment-free period, and

some participants showed slight relapse, suggesting that inclusion of an interval is not beneficial. Secondly, the participants in the study were a subset of those who met criteria for social phobia; those with predominant fear of physical symptoms of anxiety. This subset represented only 41 out of 151 who met SAD criteria in the study (Scholing & Emmelkamp, 1993), and thus the results of the study may not be generalizable to a broader population with SAD. Lastly, the provision of CBT may have changed since the study was published in 1993, and therefore effect sizes of CBT may have improved over time.

Group Treatment. The findings of the current study also compare favourably to the reviewed studies examining intensive group treatments, which displayed effects of d = 0.33-0.80 at post-treatment (Herbert et al., 2002; McEvoy, 2007), and d= 0.81-1.22 at follow-up (Mörtberg et al., 2006; Herbert et al., 2002). Herbert et al. (2002) found small effect sizes at post-treatment (d = 0.33) when reducing the timeframe for group therapy to six weeks, and lengthening the sessions to two hours. This indicates that treatment in the current study produced a larger effect (g= 1.61) in a shorter time period (4 weeks), with the same number of treatment hours. However, the effect size produced by Herbert et al.'s (2002) intervention when measured three months after treatment cessation are more comparable (d= 1.22 vs. g = 1.94, in the current study).

The study by Mörtberg, Karlsson, Fyring and Sundin (2006), which used 41 hours of treatment delivered over three weeks, demonstrated post-treatment effect sizes of 0.37 and 0.53 on the SIAS and SPS, respectively. Post-treatment effect sizes on these measures were 1.14 and 0.99 in the current study. Mörtberg et al. (2006) also reported effect sizes of 0.77 and 0.81 on the SIAS and SPS at 12 month follow-up, whereas the current study demonstrated effects of 2.36 and 1.66 on these

measures at three-month follow-up. The comparison of these two studies suggests that treatment administered in the manner described in the current study has a larger effect on SAD symptoms than the five hour daily group treatment employed by Mörtberg et al. (2006). The intensive individual treatment used in the current study also involves fewer treatment hours (12 hours, in comparison to 41 hours), but requires an additional week of total treatment time.

In sum, the evidence provided by this study suggests that IICBT for SAD may be as effective, or more so, than other available options. A comparison to published effect sizes in the literature suggests that IICBT is as effective as individual standard treatment, and more effective than standard group treatments, intensive group treatments, and the IICBT used in Scholing and Emmelkamp's (1993) study.

Implications of the current research

The results of the current study indicate that intensive treatment for SAD provided a significant reduction in SAD symptoms within four weeks for a majority of individuals in this study. Further, the participants' symptoms continued to improve after treatment cessation, which optimistically may be attributed to continued use of the skills learned in therapy. This suggests that skills were well-learned by the participants, and were applicable in varied social situations they may have encountered (i.e. not simply those situations constructed through exposure therapy).

One potential reason why intensive individual treatment may be superior to weekly sessions is because the client may become more easily accustomed to attending sessions, which may provoke anxiety for those with SAD. The frequency of sessions may reduce anticipatory anxiety for clients, especially during exposure therapy, and increase attendance to sessions and homework completion. Therapy

sessions in themselves may serve as exposure to a social situation for many, and frequent sessions may facilitate faster habituation to this situation. Although slightly higher, the attrition rate of the current study (12.5%) does not appear to have been adversely affected by the intensive nature of the treatment, in comparison to attrition in some other studies of standard individual CBT for SAD which varies between 3% and 9.5% (Mörtberg et al., 2007; Clark et al., 2006). In support of this idea, Herbert et al. (2004) reported that 75% of dropouts occurred during an extended treatment phase (in which the client was seen fortnightly).However, there are difficulties in drawing firm conclusions about attrition due to the small sample size in this study.

Despite large effect sizes, it is important to note that the pre- to post-treatment change on the SPS was not statistically significant. The SPS measures anxiety in relation to negative evaluation (for example, negative judgement from a stranger when eating in public), whereas the SIAS is aimed to assess anxiety about social interaction, and thus a smaller reduction on the SPS may indicate that treatment was less effective at reducing fear of negative evaluation. Conversely, the mean pre-treatment score on the SPS is comparatively lower than that for the SIAS. This may indicate that participants in the study experienced less fear of negative evaluation, in comparison to social interaction, prior to treatment and therefore experienced smaller change in this aspect of social anxiety. However, follow-up assessment demonstrated a large and significant effect on participants' SPS scores, indicating that this aspect of social anxiety was changed by treatment, albeit more slowly or subtly than 'social anxiety' as measured by the SIAS and SPIN.

Limitations of the Current Study

Despite promising results, the current study presents with several limitations. The primary limitation being the sample used; a sample of at least 15 participants

was deemed ideal *a priori*, however eight participants were recruited in the study. Despite a much lower sample size than aimed for, *post-hoc* power analyses indicate that this sample does provide adequate power. Further, effect sizes were calculated using Hedge's *g* to account for the small sample size.

Furthermore, due to recruitment procedures it is possible that the end sample did not contain any individuals with extremely severe SAD. Participants were required to respond to a flyer or newspaper advertisement, volunteer for a brief screening phone call and face-to-face sessions in an unfamiliar environment, all of which may provoke anxiety for individuals with SAD. This recruitment procedure may have resulted in individuals with more severe SAD avoiding help-seeking through this study. However, given the nature of the disorder this is likely to be the case in practice and research with SAD. The current sample was also limited by its age and gender ratios as the age range was 19-44 years (Mean age = 28 years, *SD* = 9.83) and the sample was 87.5% female. Therefore conclusions drawn from this study may not apply to children, adolescents, older adults, or males with SAD.

The second limitation of the current study is the design itself. While the results compare favourably to other studies, there was no comparison group used in this study. This limits the conclusions confidently drawn from the current study in that the effect of the treatment cannot be definitively attributed to its intensive nature. Further, the design used cannot account for natural fluctuations in SAD symptoms, as a baseline severity estimate was assessed at only one time point prior to treatment. Ways in which to remedy the limitations presented by the design of the current study are described below.

The diagnostic interview used in this study has some limitations. Firstly, as a new assessment tool, the DIAMOND lacks validity and reliability research. Initial

research is limited but suggests that inter-rater reliability is moderate (.68; Gilliam et al., 2014). In the current study, diagnoses of SAD were determined by only one of two researchers (both provisional psychologists) at pre-treatment, post-treatment and follow-up, and therefore may lack accuracy given the diagnostic tool, inexperience of the clinicians and lack of concurrence. Further, the SAD section of the DIAMOND was used to determine whether participants met criteria for SAD immediately post-treatment and three months following the end of treatment. This section of the DIAMOND specifies the timeframe for symptoms to have occurred in the past month; at the end of the four-week treatment this timeframe encapsulates only the treatment period. This may inflate results as participants are purposefully not avoiding social situations during this time, for example. Despite the limitations of the DIAMOND, it was the only diagnostic tool based upon DSM-5 criteria available for use at the time this study was conducted. Alternative options would require past criteria to be used and this may provide a less accurate measure of clinical SAD, limiting the validity of the study results.

Directions for future research

The limitations mentioned above reveal several avenues for future research into IICBT for SAD. Firstly, using a design in which two groups receive identical treatment; one group attending weekly sessions over 12 weeks, and another which receives treatment in the manner described in the current study (three times per week over four weeks). In this scenario only the frequency of sessions differs between groups, as the number, length and content of each session is identical, and individual sessions are used in both conditions. This maximises the confidence with which one can determine the effect of intensive treatment, through direct comparison to treatment as usual. This concept could also be expanded to include a matched waitlist

control group in a three group design. The small sample size in the current study is a significant limitation; future research investigating intensive CBT for SAD could aim to replicate this study in a larger sample.

Further, future research in this area could focus on intensive treatment in adolescents. As SAD tends to develop in young adolescence, quick and effective treatment options to intervene early in the course of the illness are likely to be highly beneficial for individuals and economies. Similarly, intensive treatment in children and older adults could be investigated, although SAD is less prevalent in these populations in comparison to adolescents and young adults. Further, a gender-balanced sample would increase the validity of future research, and may allow for investigations of gender differences in the intensive treatment of SAD.

Summary and Conclusion

In conclusion, the current study provides preliminary evidence that IICBT is effective in the treatment of SAD in adults. Twelve hours of treatment administered in hour sessions three times weekly, over four weeks, appears to produce significant reductions in SAD symptoms. The severity of symptoms is further reduced when assessed three months following treatment cessation. The results of the current study compare well to other available options for the treatment of SAD with CBT. Despite promising results, the current study is hindered by a small sample size and lack of comparison group, and thus, further research is needed to confirm the effect of IICBT.

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Appendices

Appendix A

DSM Criteria for SAD

Criterion	Symptom
A	Excessive anxiety or fear about social situations
B	Fear of negative evaluation by others in social contexts
C	Anxiety is almost always elicited by social situations
D	Avoidance of, or extreme fear in, social situations
E	Fear is disproportionate to the threat
F	The anxiety has lasted six months or more
G	Significant distress or impairment
H	Not caused by substance use or medical condition
I	Not caused by another mental disorder
J	In the context of another medical condition, anxiety is disproportionate or separate.

The following vignette serves as an example of a typical presentation of social anxiety disorder. Mary is an 18 year old female who has experienced symptoms of social anxiety since beginning high school six years ago (criterion F). She consistently experiences anxiety before and during activities such as class discussions, parties, meeting with friends, and making appointments over the telephone (criterion C). After being invited to a party, Mary experiences intense anxiety when thinking about going to the event (criterion A) and often will not attend parties because of this anxiety, despite wanting to (criterion D). If Mary does attend a social event, she tends to be preoccupied by thoughts that she is perceived as stupid

or boring by others and fears that she will embarrass herself (criterion B). If she stutters or blushes in conversation at the party, she believes that everyone at the party will reject her and believe that she is stupid and worthless (criterion E). Her symptoms have prevented Mary from applying for part time jobs and pursuing romantic relationships and friendships (criterion G). Mary is not currently suffering from any medical illnesses (criterion H), mental illnesses (criterion I), or taking any medications which may cause social anxiety symptoms (criterion H).

Appendix B

Description of CBT Interventions

Psycho-education. In the Rapee and Heimberg model (1997), psycho-education functions to teach the individual the specific process through which social situations cause anxiety, and how cognitive behavioural treatment will break the cycle of anxiety. The focus of psycho-education is to provide the individual with practical information about SAD and assist them to understand their experience of the disorder. The therapist may explain the difference between adaptive and maladaptive levels of social anxiety, the physiological, cognitive, and behavioural components of anxiety, and the rationale for using cognitive-behavioural treatment (what to expect from treatment and the treatment outcome literature).

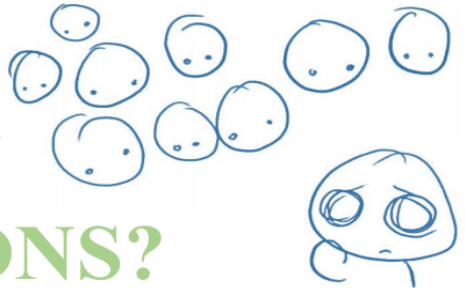
Cognitive restructuring. Cognitive restructuring involves identifying and challenging maladaptive thoughts and core beliefs that maintain the disorder. Unrealistic thoughts are then restructured to provide a more realistic account of social situations. This alters the cognitive symptoms of the anxiety response described in the Rapee and Heimberg model (1997) via re-assessment of other's social expectations and negative evaluation, the individuals' estimation of their negative performance and the social cost associated with this.

Exposure therapy. Exposure therapy aims to alter the individual's cognitive anxiety symptoms, their behavioural responses to anxiety, and their physiological reaction to social situations. Through gradual exposure to anxiety-provoking situations, the individual experiences a natural rise and gradual decrease in their physiological anxiety level, known as habituation. During the exposure, the individual also gathers information to counter their assumptions about social

situations, thus reducing their distorted cognitions. Finally, as avoidance and other safety behaviours are prevented during exposures, the individual learns that they are able to cope without avoiding or escaping an anxiety-provoking situation, and without using maladaptive coping behaviours. This process also works to alter cognitive distortions about themselves and social situations.

Appendix C

Recruitment Flyer



DO YOU OFTEN FEEL ANXIOUS IN SOCIAL SITUATIONS?

The University of Tasmania is offering treatment for Social Anxiety Disorder as part of a research study.

Visit **bit.do/Social-anxiety-study** for more information and to determine if you are eligible to participate or email **hunna@utas.edu.au** for more information.

This study has been approved by the Tasmania Social Sciences Human Research Ethics Committee (H14034).

Visit: bit.do/Social-anxiety-study
Email: hunna@utas.edu.au

Appendix D

Newspaper Advertisement

New Approaches to the Treatment of Anxiety Disorders

Do you feel anxious in social situations?

Do you experience panic attacks that come out of the blue?

Researchers at the University of Tasmania are testing the effectiveness of a new psychological approach to the treatment of social anxiety disorder and panic disorder. See the following webpage or contact the chief investigator (Dr. Bethany Wootton 03 6226 7124) for more information about these studies.

http://bit.do/panicdisorderstudy OR http://bit.do/Social-anxiety-study

University of Tasmania Social Sciences HREC: 0014034 and 0014035

Appendix E

Ethics Approval Letter

Social Science Ethics Officer
Private Bag 01 Hobart
Tasmania 7001 Australia
Tel: (03) 6226 2763
Fax: (03) 6226 7148
Katherine.Shaw@utas.edu.au

HUMAN RESEARCH ETHICS COMMITTEE (TASMANIA) NETWORK

29 July 2014

Dr Bethany Wootton
Psychology
Private Bag 30

Dear Dr Wootton

Re: FULL ETHICS APPLICATION APPROVAL
Ethics Ref: H0014034 - Intensive Cognitive Behaviour Therapy for Social Anxiety Disorder: A Pilot Study

We are pleased to advise that the Tasmania Social Sciences Human Research Ethics Committee approved the above project on 29 July 2014.

This approval constitutes ethical clearance by the Tasmania Social Sciences Human Research Ethics Committee. The decision and authority to commence the associated research may be dependent on factors beyond the remit of the ethics review process. For example, your research may need ethics clearance from other organisations or review by your research governance coordinator or Head of Department. It is your responsibility to find out if the approval of other bodies or authorities is required. It is recommended that the proposed research should not commence until you have satisfied these requirements.

Please note that this approval is for four years and is conditional upon receipt of an annual Progress Report. Ethics approval for this project will lapse if a Progress Report is not submitted.

The following conditions apply to this approval. Failure to abide by these conditions may result in suspension or discontinuation of approval.

1. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval, to ensure the project is conducted as approved by the Ethics Committee, and to notify the Committee if any investigators are added to, or cease involvement with, the project.

2. Complaints: If any complaints are received or ethical issues arise during the course of the project, investigators should advise the Executive Officer of the Ethics Committee on 03 6226 7479 or human.ethics@utas.edu.au.

3. Incidents or adverse effects: Investigators should notify the Ethics Committee immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.

4. Amendments to Project: Modifications to the project must not proceed until approval is obtained from the Ethics Committee. Please submit an Amendment Form (available on our website) to notify the Ethics Committee of the proposed modifications.

5. Annual Report: Continued approval for this project is dependent on the submission of a Progress Report by the anniversary date of your approval. You will be sent a courtesy reminder closer to this date. **Failure to submit a Progress Report will mean that ethics approval for this project will lapse.**

6. Final Report: A Final Report and a copy of any published material arising from the project, either in full or abstract, must be provided at the end of the project.

Yours sincerely

Digitally signed by Lauren Black
DN: cn=Lauren Black, o=University of Tasmania, ou=Health and Medical Research Ethics, email=lauren.black@utas.edu.au, c=AU
Date: 2014.07.29 14:07:44 +10'00'

For Ethics Officer
Tasmania Social Sciences HREC

Appendix F

Demographic Questionnaire

Demographic Questions

Please note that this information will be used by the researchers only if you wish to participate in the study and meet all inclusion criteria.

[ ]What is your first name?

Please write your answer here:

[ ]What is your gender? *

Please choose **only one** of the following:

- ○ Female
- ○ Male
- ○ Other

[ ]What is your current age? *

Please write your answer here:

years

You must be aged over 14 to participate in this study.

[ ]What is your ethnicity? *

Please choose **all** that apply:

- ☐ Caucasian/ European
- ☐ Aboriginal
- ☐ Torres Strait Islander
- ☐ Asian
- ☐ Other:

Please choose all that apply.

Appendix G

Treatment Manual

INTENSIVE

COGNITIVE BEHAVIOURAL THERAPY

FOR SOCIAL ANXIETY DISORDER

A 12 SESSIONS, FOUR WEEK TREATMENT PLAN

Pre-treatment session

Session Plan:

- The participant must read the study information sheet
- The participant must sign the written consent form
- The participant must be verbally informed about
- DIAMOND interview
- Book in treatment sessions

SESSION ONE

THERAPIST MATERIALS

Session One – Psycho-education

The focus of session one is on psycho-education for social anxiety disorder.

Session Plan:

- Thank the client for taking part in the study
- MINI-SPIN
- Normalise social anxiety disorder
- Explain social anxiety disorder development and maintenance
- Provide a rationale for CBT for social anxiety disorder and outline treatment plan
- Discuss elements of CBT:
    - Session planning
    - 'Active' approach to treatment
    - Homework
    - Important of treatment compliance

Thank the client for participating in the study

"Thank you for participating in our research study. As you're aware, we're hoping to investigate the effectiveness of intensive cognitive behavioural therapy for social anxiety disorder. Today we'll talk about what social anxiety disorder is, and how we use cognitive behavioural therapy to treat social anxiety".

Mini- SPIN

"At the beginning of each session, we'll get you to answer these three questions to measure your symptoms".

(Administer Mini-SPIN)

Normalising social anxiety

Normal vs Problematic social anxiety

"Social anxiety exists along a continuum (show continuum sheet) with the most socially anxious person in the world down here, and someone who has never felt any social anxiety is up here. We know that everyone experiences some social anxiety in their lives, and this is a good thing because sometimes this anxiety motivates us to try hard and often makes us nicer people. Without any social anxiety, we would probably not care too much about our performance or we might be rude to other people. Where we fall on the continuum depends on:

- *how many situations cause us anxiety*
- *the intensity and duration of the anxiety we feel*
- *how social anxiety affects our lives*

Social anxiety is problematic when we feel some really strong anxiety and fear for a long time in a lot of social situations, and this fear stops us from doing things that we'd like be able to do. We call a problematic level of social anxiety, social anxiety disorder.

We know that problematic levels of social anxiety are really common, and social anxiety disorder occurs in 5% of Australians, so one in 20 people you meet, or in a lecture of 200 people, 10 people probably experience social anxiety in the same way you do"

Explain social anxiety disorder development and maintenance

ABC Model

"So we know that everyone experiences some social anxiety, and that a lot of people experience problematic social anxiety. The way that each person experiences anxiety is a little different but we know that most people experience anxiety in a three ways. Our body reacts (we have a physiological reaction), we think some unhelpful thoughts (a cognitive part), and there are also things that we do to try to avoid or deal with the anxiety (a behavioural response). What happens when you enter a social situation that makes you anxious?

1. Brainstorm with the client what happens when they get anxious.

Is that something your body does, a thought, or something that you do?

2. Group responses into physiological, cognitive and behavioural components using worksheet.

These experiences are quite similar to what a lot of people who have social anxiety disorder experience.

3. Compare to list of common components of social anxiety.

CBT Rationale

Even though we are not exactly sure what causes social anxiety, and the cause is probably different in different people, we know quite a bit about what maintains the anxiety, that is, what keep it going. Basically the symptoms of social anxiety are maintained by unhelpful thoughts and unhelpful behaviours. (Point out columns on

'components of social anxiety' sheet). *We also know that these components of social anxiety tend to work together; with a social situation causing us to think unhelpful thoughts, which cause us to feel anxious and to try to avoid or deal with the anxiety.*

Let's take a look at what happens when you get anxious…. Tell me about a situation recently where you felt socially anxious.

(Let participant tell a story and then identify the trigger for them, ask about thoughts, feelings and behaviours that occurred in the scenario)

(Use basic CBT model to map out trigger, thoughts feelings and behaviours)

So (trigger happens) and you think some thoughts like …We call these unhelpful thoughts because they make us feel an unpleasant emotion, like anxiety.

Now over here in the behaviours you can see that you are doing a lot of other unhelpful behaviour such as…… We call these behaviours 'unhelpful' because often doing them makes us feel better at the time, they reduce our anxiety, but in the long run they stop us from learning how to deal with anxiety in social situations, and actually make us more anxious next time.

Sometimes people will just avoid social situations altogether. We know from a lot of research that this is unhelpful because, again, it stops us from learning that we can survive in that situation, makes us believe that we can't handle that situation and makes us more likely to avoid things that make us anxious, but we want to do.

In the cognitive-behavioural treatment of social anxiety disorder we focus on addressing the unhelpful thoughts and unhelpful behaviours. We do this by looking at the thoughts that are making us anxious and seeing how true they are, and by facing social situations and learning that we can handle them without doing any of these unhelpful behaviours.

Do you have any questions about this?

Explain expectations of CBT

Often people have different expectations of what therapy involves. Cognitive-behavioural therapy (or CBT) is a very active treatment, so let me explain a little bit about what it looks like. As we talked about before CBT works by helping you to make changes to the thoughts and behaviours that maintain your anxiety. But changing the way you think and what you do takes a lot of work. Unfortunately, I can't do that work for you, because we only see each other three hours a week and social anxiety affects your life much more often than that. I will be your coach, but CBT requires you to work hard to change the way you experience social situations both in session and outside of our sessions.

We know from research that CBT is the best psychological treatment for social anxiety disorder and the harder that you work and use the skills that you learn in session, the more effective CBT will be. Almost all of the social situations that you get anxious in won't be during those three hours a week that we see each other, and so I'll ask you practice what you learn out in the real world, in between sessions too. You will have homework tasks to complete between each of our sessions and we will use a lot of the information from the tasks that you do outside of session in the following sessions, so it is important that you do them.

Do you have any questions about that? Does that sound like the sort of thing that you can commit to?

Homework

So we've gone over a lot of information in this session. Do you have any questions about anything we've covered so far?

Here is some information about social anxiety disorder to read before the next session. Write down any questions you have before our next session and I would be happy to answer any questions that you have.

(Give social anxiety disorder fact sheet)

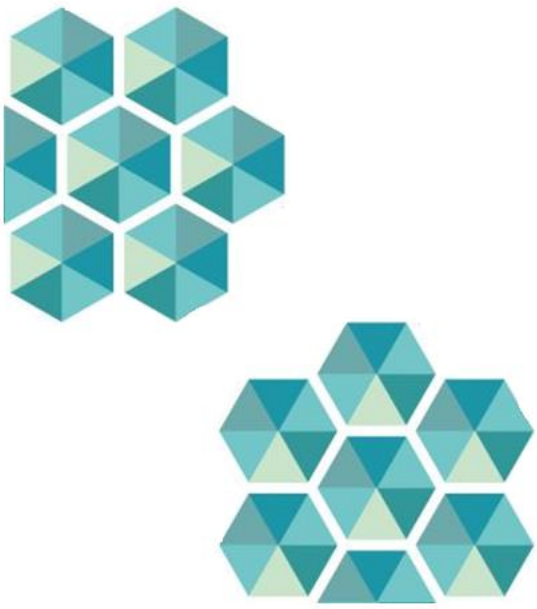
I'd also like you start monitoring your symptoms. When you get anxious write down the situation you're in, what you're thinking, the physiological reaction and emotions, and what you do because of that anxiety. You can do that using this sheet here (symptom monitoring sheet). *Let's try using it now using the example we talked about before…*

Do another example if there is time

SESSION ONE

CLIENT MATERIALS

		Not at all 0	A little bit 1	Some-what 2	Very much 3	Extremely 4
1.	Does fear of embarrassment cause you to avoid doing things or speaking to people?	☐	☐	☐	☐	☐
2.	Do you avoid activities in which you are the centre of attention?	☐	☐	☐	☐	☐
3.	Is being embarrassed or looking stupid among your worst fears?	☐	☐	☐	☐	☐



The least socially anxious person in

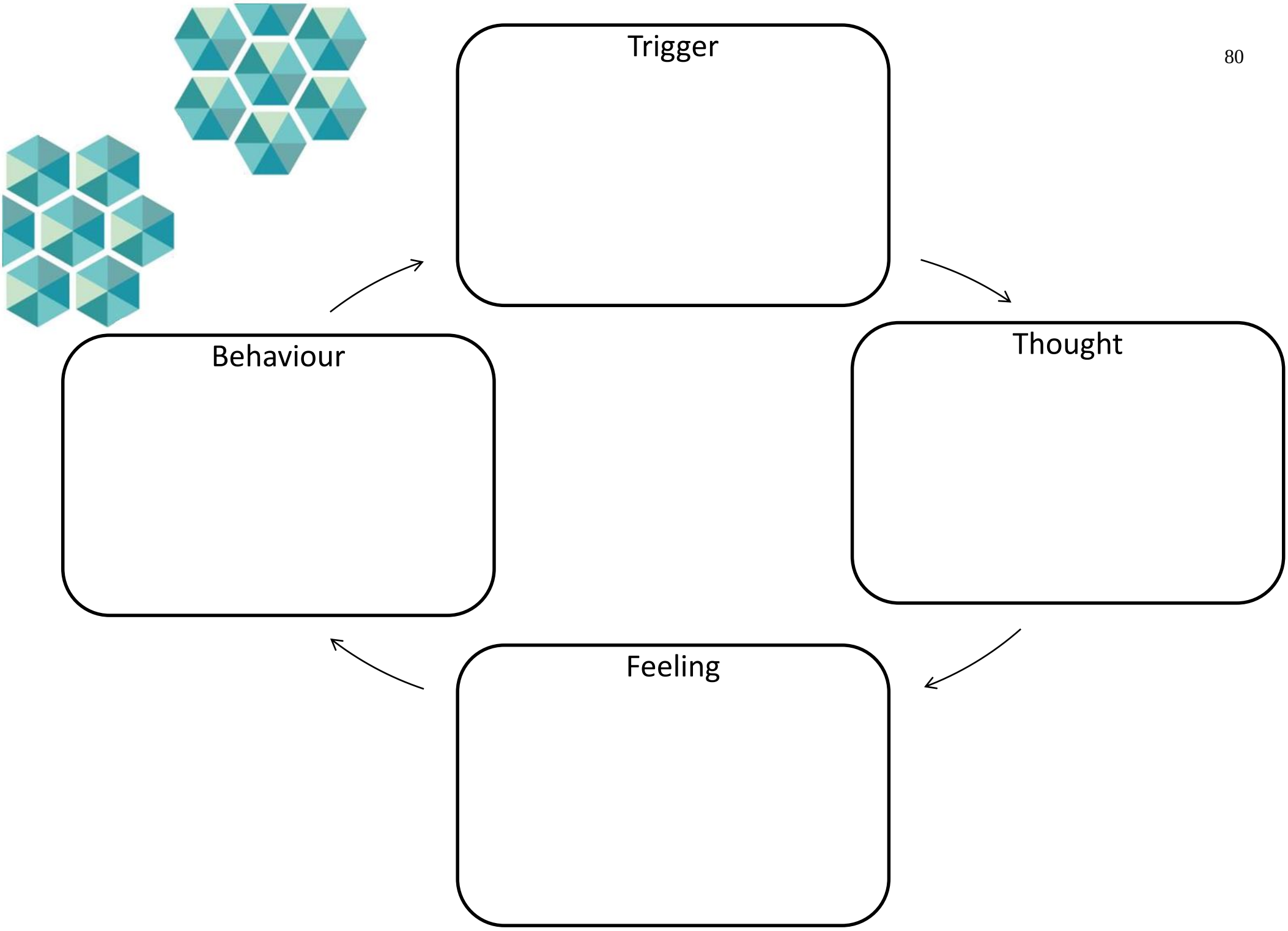
The most socially anxious person in the

Components of social anxiety

Physiological	Cognitive	Behavioural

Common components of social anxiety

Physiological	Cognitive	Behavioural
Sweating	"I look stupid"	Avoiding eye contact
Blushing	"They'll think I'm a loser"	Avoiding talking to others
Pounding heart	"I'm inadequate"	Taking medication
Nausea	"I can't do this"	Drinking alcohol
Feeling hot	"They can see I'm nervous"	Leaving the situation
Trouble breathing	"I'm a loser"	Avoiding social situations
Shaking	"I'll blush"	Rehearsing social situations before they happen
	"I'll shake"	
		Scanning the other persons face for signs of criticism


Trigger
Thought
Feeling
Behaviour

SOCIAL ANXIETY DISORDER

What is social anxiety disorder?

Many people are shy and sometimes get embarrassed in front of other people. When this fear and anxiety of being embarrassed or judged in social situations stops you from doing things you enjoy or causes you a lot of distress we call it social anxiety disorder. People with social anxiety disorder often feel very uncomfortable in or avoid situations such as conversations with others, going to parties, eating, writing or walking in public, public speaking or talking on the phone.

Who has social anxiety disorder?

Social anxiety disorder is the second most common mental illness in Australia. One in 20 Australian adults (5.7% of females and 3.8% of males) has social anxiety disorder. Social anxiety disorder can affect people of any age but usually begins around age 13.

What symptoms might I have?

There are four main signs of social anxiety disorder.

1. Extreme anxiety or fear about social situations
2. Fear of being judged negatively by others in social situations
3. Social situations almost always cause anxiety
4. Avoidance of social situations, or extreme fear in social situations

Social anxiety is more extreme than shyness and can have a big impact on your life. You may have social anxiety if these symptoms have been bothering you for six months or more, are significantly impacting on your life, and aren't caused by another medical or mental condition, or drug/ medication use.

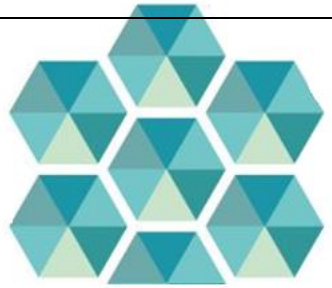
How is social anxiety disorder treated?

Cognitive Behavioural Therapy, or CBT, is an evidence based treatment for social anxiety disorder. CBT works for most people with social anxiety disorder and is usually delivered by a clinical psychologist over about 12 sessions.

CBT for social anxiety works by reducing the maintaining factors of the anxiety (unhelpful thinking and unhelpful behaviours). We address these maintaining factors via cognitive restructuring and exposure therapy. Cognitive restructuring is a way of testing out your thoughts and exposure involves very gradually facing situations which cause anxiety, starting with situations which cause a little anxiety and building up to those which are most scary. Practising skills learned in session in the real world is an important part of CBT.

Medications, particularly SSRIs, can also be used to treat social anxiety disorder. Talk to your doctor if you would like to know more about how medications may help with social anxiety.

Situation *Where were you?* *What were you doing?* *What happened?*	**Thought** *What was going through your mind?* *What were you thinking or what were you worried about?*	**Emotion and Intensity** *How did that situation and thought make you feel?* *What was the intensity of the emotion (0-100)*	**Behaviour** *What did you do?* *Did you leave or avoid the situation?*



SESSION TWO

THERAPIST MATERIALS

Session Two – Cognitive restructuring

The focus of this session is to introduce cognitive restructuring.

Session Plan:

- Homework review
- Agenda setting
- Check risk level (if relevant)
- Deliver rationale for cognitive restructuring
- Teach the client to identify thinking traps
- Teach the client 'for and against technique'

Homework review:

- Ask if the client read the information sheet about social anxiety, and answer any questions
- Review the symptom monitoring sheet: Provide verbal positive reinforcement to the participant for completing the homework and emphasise its importance in treatment.
- If homework not completed briefly troubleshoot any barriers to completing homework and emphasise the importance of homework. Remind client of components of CBT (from last session).

Agenda Setting

Each session we will set an agenda so that we both know what we need to cover in that session. Because this is a research study the sessions are highly structured, however if

there is something that you would like to put on the agenda that is ok. In this session I would like to start to teach you about thoughts and ways that we can work on modifying unhelpful thoughts. Is there anything that you would like to put on the agenda?

Rationale for cognitive restructuring

Last session we talked about how the way we think affects the way we feel and we also talked about how changing these unhelpful thoughts, the thoughts that make us feel bad, is a big part of CBT for social anxiety disorder. Often people find that testing their thoughts, rather than just believing them can have a big impact on their anxiety.

Thinking traps

Based on your homework we can see here that (trigger) and then you immediately think (thought), and that idea makes you (feeling) and because you're feeling (feeling), you do (behaviour). You have done a good job of identifying what you were thinking when you were anxious.

If client has not done their homework use an example from the previous session

We know that a lot of the time our brains tend to take short cuts, and some of these are not helpful at all and lead to unhelpful thoughts that might not be true and make us anxious – we call these unhelpful short cuts, thinking traps. There are a few thinking traps that we tend to fall into (give thinking traps handout).

The first is called black and white thinking. This is where we think something is either one way or the complete opposite. For example, "I'll never make any friends". A lot of the time you can identify this thinking trap by looking for words like never, always, everything, or anything.

Another thinking trap is called personalising. This is when we blame ourselves for something that we had no control over. For example, "She left the party because I was boring".

We also tend to mind read. Mind-reading is when we think we know what other people are thinking, without asking them. For example, "He thinks I'm a loser".

Fortune telling is when we think negative things about what is going to happen in the future. For example, "if I go to that party, I'll embarrass myself".

Catastrophizing is s when we predict the worst possible outcome. For example, "I'll die if I embarrass myself".

Emotional reasoning is when we believe something is true based only on how we feel. For example, "I feel like a loser, so I must look like one".

If we learn how to identify when we've fallen into a thinking trap, then we can see that that thought might be unhelpful. Let's take a look at this thought… (Identify unhelpful thought from symptom monitoring sheet). Which of these thinking traps might this thought fall into*?*

For and against technique

So we've identified that (thought) is an example of (thinking trap). (Write thought on whiteboard). Let's now start to evaluate these thoughts. When we look at our thoughts I want you to try to look at them as hypotheses, rather than fact. A scientist would treat theories as hypotheses to be tested. Just like a scientist, I want you to try to think about your thoughts as hypotheses to be tested rather than truth. We will work together to try and test them out.

Identify the hottest thought from homework

Let's look at how true you think this thought is; how much do you believe this thought from 0 to 100%?

*Okay, let's look at some reasons why you think this thought is true (*Make for and against columns and brainstorm in 'for' column).

Are there any reasons you can think of that this thought might not be true? (Brainstorm in 'against' column).

Looking at the evidence we have come up with together, how much do you believe that this thought is true? How does that compare with your original estimation?

If this thought was true, how bad would it be? Would you remember it in 5 years' time? Could you live with it? Would it be the end of the world?

So after looking at the evidence for and against this thought – you don't believe it so much. What is a more realistic thought about…?

*(*Put new thought into CBT model, talk about difference in feelings and behaviour). *Can you see how challenging our unhelpful thoughts can help us to think of more realistic ones, which tend to make us feel better?*

Homework

Over the next few days, use this form to help you identify when you fall into a thinking trap (thought monitoring form), *and use this one to help you challenge one of those thoughts* (for and against sheet – explain the parts of the form). Explain that it is okay to not get it 'right' and it is just about practicing the skills.

SESSION TWO

CLIENT MATERIALS

Session symptom measure

		Not at all 0	A little bit 1	Some-what 2	Very much 3	Extremely 4
1.	Does fear of embarrassment cause you to avoid doing things or speaking to people?	☐	☐	☐	☐	☐
2.	Do you avoid activities in which you are the centre of attention?	☐	☐	☐	☐	☐
3.	Is being embarrassed or looking stupid among your worst fears?	☐	☐	☐	☐	☐

Unhelpful Thinking Worksheet

What is the unhelpful thought?

How much do you believe this thought? (0-100%) _____

What is the thinking trap? _____

What is the evidence?

For	Against

How much do you believe this thought? (0-100%)_____

If what you were thinking did happen would that be the end of the world?

What is a more helpful way to think in this situation?

Thinking Traps

Thinking Trap	Definition	Example
Black and White Thinking	All-or-nothing thoughts	*"I'll never make any friends*
Personalising	Blaming yourself for something you have no control over	*"She left the party because I was boring her"*
Mind Reading	Thinking you know what someone else is thinking	*"He thinks I'm a loser"*
Fortune Telling	Predicting something bad.	*"if I go to that party, I'll embarrass myself"*
Catastophising	Predicting the worst	*"I'll die if I embarrass myself".*
Emotional Reasoning	Believing that the way you feel is the truth.	*"I feel like a loser, so I must look like one"*

Situation *Where were you?* *What were you doing?* *What happened?*	**Thought** *What was going through your mind?* *What were you thinking or what were you worried about?*	**Thinking Trap** *Which thinking trap did you fall into?*	**Emotion and Intensity** *How did that situation and thought make you feel?* *What was the intensity of the emotion (0-100)?*	**Behaviour** *What did you do?* *Did you leave or avoid the situation?*

COGNITIVE RESTRUCTURING

What is cognitive restructuring?

Cognitive restructuring is the 'C' in CBT. Cognitive restructuring is used to test and challenge unhelpful thoughts that maintain social anxiety. Evaluating our thoughts is difficult and takes a lot of effort, especially if we've been thinking unhelpful thoughts for a long time. It is important to know that cognitive restructuring is about testing the thoughts, not just replacing negative thoughts with positive thoughts with more positive ones.

What are unhelpful thoughts?

Our brains often don't know if our thoughts are true or not and often we just believe them as truth. Unhelpful thoughts are those that make us feel an unpleasant emotion such as sadness, anxiety, guilt, or anger. Often we see that our unhelpful thoughts seem to fall into the same kinds of 'thinking traps. These are short cuts that our brains tend to take in order to organise information. Below are some common thinking traps that we often fall into.

Thinking Trap	Definition	Example
Black and White Thinking	All-or-nothing thoughts	*"I'll never make any friends*
Personalising	Blaming yourself for something you have no control over	*"She left the party because I was boring her"*
Mind Reading	Thinking you know what someone else is thinking	*"He thinks I'm a loser"*
Fortune Telling	Predicting something bad.	*"if I go to that party, I'll embarrass myself"*
Catastophising	Predicting the worst	*"I'll die if I embarrass myself".*
Emotional Reasoning	Believing that the way you feel is the truth.	*"I feel like a loser, so I must look like one"*

How do we change unhelpful thoughts?

Once an unhelpful thought has been identified, there are several ways in which we can test how true the thought is. Your therapist will help you to examine the evidence behind your unhelpful thoughts and teach you how to develop a more realistic way of thinking. Once you have learned how to do this, it needs to be practiced. Overcoming unhelpful thoughts takes time and effort because we often fall into thinking traps out of habit. Fortunately, testing your thoughts will become easier over time.

SESSION THREE

THERAPIST MATERIALS

Session Three – Cognitive Restructuring

The focus of this session is cognitive restructuring.

Goals:

- Continue cognitive restructuring using for and against technique

Homework review: thought monitoring and thinking trap homework.

- Review the symptom monitoring sheet: Provide verbal positive reinforcement to the participant for completing the homework and emphasise its importance in treatment.
- *Are there any thoughts that you had trouble identifying or challenging?* (troubleshoot any problems with identifying thinking traps or using the for and against technique to challenge unhelpful thoughts)
- If homework not completed briefly troubleshoot any barriers to completing homework and emphasise the importance of homework.

Administer Mini-SPIN

For and against technique

(Choose the 'hottest' thought from the homework task)

So we've identified that (thought) is an example of (thinking trap). (Get client to write thought on whiteboard). Let's now evaluate this thought in the same way we did last session. Remember, we're looking at the evidence to support this thought, not just accepting that it is true.

How much do you currently believe this thought from 0 to 100%?

*Okay, let's look at some reasons why you think this thought is true (*have client make for and against columns and brainstorm in 'for' column).

Are there any reasons you can think of that this thought might not be true? (Brainstorm in 'against' column).

Looking at the evidence we have come up with together, how much do you believe that this thought is true? How does that compare with your original estimation?

If this thought was true, how bad would it be? Would you remember it in 5 years' time? Could you live with it? Would it be the end of the world?

So after looking at the evidence for and against this thought – you don't believe it so much. What is a more realistic thought about…? (Have client write new thought on white board).

(Put new thought into CBT model, talk about difference in feelings and behaviour). *Can you see how challenging our unhelpful thoughts can help us to think of more realistic ones, which tend to make us feel better?*

Let's try another thought… (Repeat for and against technique if there is adequate time)

Over the next couple of days, I'd like you to start to make a conscious effort to use these new thoughts we've come up with. When you find yourself thinking these unhelpful thoughts, see what happens when you use a more helpful one. This process can take a lot of effort, and really is not easy to begin with, but eventually the more helpful thoughts will become automatic.

Homework

Over the next few days, I'd like you to continue to monitor your unhelpful and new helpful thoughts using this form (thought monitoring form), and use this one to help you challenge thoughts (for and against sheet). Next session, we'll look at these thoughts in a little more depth, so the more examples we have on your sheets, the better.

SESSION THREE

CLIENT MATERIALS

Session symptom measure

		Not at all 0	A little bit 1	Some-what 2	Very much 3	Extremely 4
1.	Does fear of embarrassment cause you to avoid doing things or speaking to people?	☐	☐	☐	☐	☐
2.	Do you avoid activities in which you are the centre of attention?	☐	☐	☐	☐	☐
3.	Is being embarrassed or looking stupid among your worst fears?	☐	☐	☐	☐	☐

Unhelpful Thinking Worksheet

What is the unhelpful thought?

How much do you believe this thought? (0-100%) _____

What is the thinking trap? _____

What is the evidence?

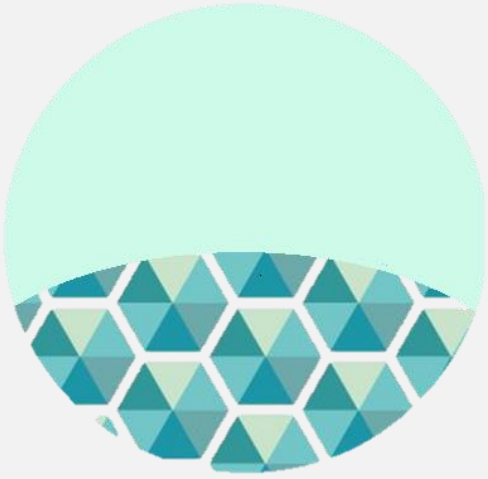
For	Against

How much do you believe this thought? (0-100%)_____

If what you were thinking did happen would that be the end of the world?

What is a more helpful way to think in this situation?

Situation *Where were you?* *What were you doing?* *What happened?*	**Thought** *What was going through your mind?* *What were you thinking or what were you worried about?*	**Thinking Trap** *Which thinking trap did you fall into?*	**Emotion and Intensity** *How did that situation and thought make you feel?* *What was the intensity of the emotion (0-100)?*	**Behaviour** *What did you do?* *Did you leave or avoid the situation?*



SESSION FOUR

THERAPIST MATERIALS

Session Four – Cognitive restructuring

The focus for this session is cognitive restructuring.

Goals:

- Introduce core beliefs
- Identify a core belief
- Challenge core belief using the 'continuum technique'

Administer Mini SPIN

Homework review: review of thought monitoring sheet and use of 'for and against technique', problem solving with using restructured thoughts.

Core Beliefs

We've done a good job of identifying and challenging these thoughts so far. Sometimes there can be a stronger belief under your thoughts. We call this a core belief. If we think of thoughts like layers of an onion: The outer layers are your automatic thoughts (the thoughts we have been working on) and at the core of the onion are what we call core beliefs. Core beliefs are usually stronger beliefs about ourselves and the world, which we may have had for a long time and are usually more difficult to identify and to challenge. This session, we'll have a look at your thought monitoring and see if we can see a pattern in your thoughts, and identify any core beliefs that you have.

Identifying Core Beliefs

Let's take a look at one of these thoughts in more detail (choose a thought from the homework task and use a downward arrow technique to elicit a core belief – e.g. *"what would it mean if that were true?", "If that were true, what would it say about you?"*)

Continuum Technique for Core Beliefs

*Today I will teach you another way that you can challenge unhelpful thoughts and core beliefs. Let's look at this core belief (*write core belief identified on whiteboard). *How much do you believe this thought out of 100?* (Draw continuum) *If this end of the continuum is where the core belief is completely true, and this end is where the complete opposite is true – where do you think you sit?*

(Let the client mark a point on the continuum). *Let's look further at this end of the continuum where this thought is completely true* (brainstorm with client what someone for whom this belief was completely true about would do, be like, feel like etc. (use extremes). *And now let's look at someone at the other end of the continuum (*brainstorm with client what someone for whom this belief was completely true about would do, be like, feel like etc. (use extremes). Ask the client to re-evaluate where they sit on the continuum and how much they believe in the core belief. Think of a more realistic thought.

Identify another core belief if there is time.

Homework

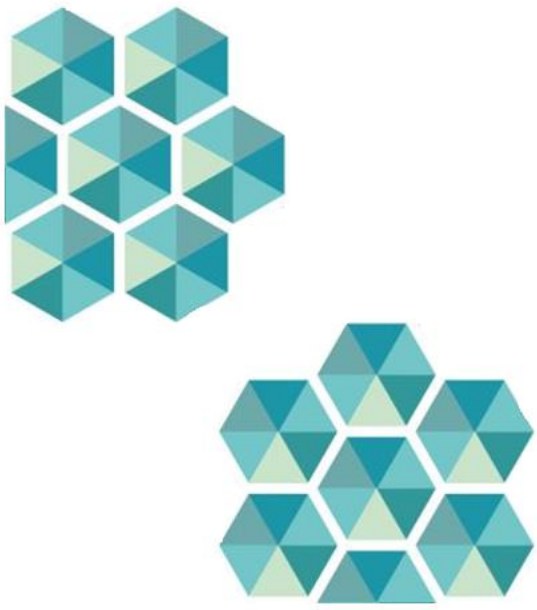
Before the next session, I'd like you to continue monitoring your thoughts and to write down when the core beliefs we've talked about, or any others you can identify, are being activated. Once you have done this, remember to see if you can look at the thought more realistically and ask yourself how someone for whom this belief was 100% true or untrue or would be (give thought monitoring sheet).

SESSION FOUR

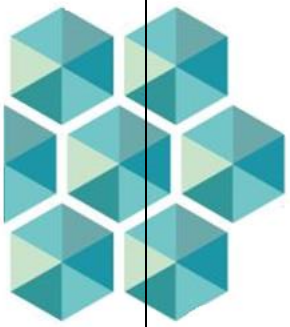
CLIENT MATERIALS

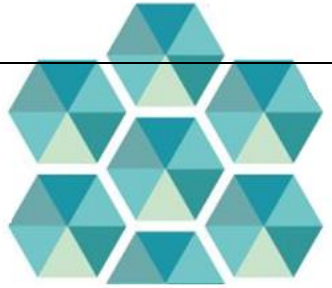
Session symptom measure

		Not at all 0	A little bit 1	Some-what 2	Very much 3	Extremely 4
1.	Does fear of embarrassment cause you to avoid doing things or speaking to people?	☐	☐	☐	☐	☐
2.	Do you avoid activities in which you are the centre of attention?	☐	☐	☐	☐	☐
3.	Is being embarrassed or looking stupid among your worst fears?	☐	☐	☐	☐	☐



Situation *Where were you?* *What were you doing?* *What happened?*	**Thought** *What was going through your mind?* *What were you thinking or what were you worried about?*	**Core Belief** *Is there an underlying core belief? What would it mean if that thought were true?*	**Emotion and Intensity** *How did that situation and thought make you feel?*	**Behaviour** *What did you do?* *Did you leave or avoid the situation?*





SESSION FIVE

THERAPIST MATERIALS

Session Five – Exposure

The focus for this session is exposure therapy.

Goals:

- Summarise progress to date
- Provide rationale for exposure therapy
- Grade exposure hierarchy

Mini SPIN

Summarise progress to date

In our CBT model (show generic CBT model)*, we've addressed this part* (point out thought component). *We've done a good job of identifying and challenging automatic thoughts and core beliefs and coming up with some more realistic thoughts* (Give some examples of automatic thoughts and core beliefs that were challenged and the more realistic thoughts).

Introducing exposure:

The next part of therapy is to look at the behaviour part of this model (point out behaviour component on CBT model); *the behaviours we spoke about in this part are avoidance and safety behaviours. We do this by carefully and gradually testing out what actually happens in social situations that make you anxious without those behaviours. We know that what is appropriate behaviour in social situations is not usually well defined, and this can make us anxious because we're unsure if we're doing it correctly.*

We know that most people with social anxiety tend to overestimate the probability that they will make a social mistake as well as the social cost of making that mistake; for example Mary might be convinced that she will embarrass herself at a party and that when

she does, everyone at the party will think she is stupid and she will never get invited to another party again. We know already that this is an example of the thinking traps of fortune telling (they are predicting that they will be embarrassed and never get invited again), and mind reading (everyone at the party will think they are stupid), so these thoughts are probably not realistic and are likely to make Mary anxious when they go to the party (if they do not avoid it).

How anxious do you think Mary will be before she goes to the party? And when she arrives at the party? That's right; we know that anxiety is likely to be high before the party and even higher when she enters the party (draw an axis with anxiety along Y axis and time along X axis – graph a habituation curve – see exposure fact sheet). *We also know that it is not possible to sustain that level of anxiety, and so Mary's level of anxiety comes down naturally after being at the party for a little while. What if Mary left the party at this point?* (Draw a vertical line at peak of anxiety on graph). *That is likely to make Mary's level of anxiety drop quite quickly but she wasn't able to see that her anxiety would come down naturally, and she is going to be more anxious next time she is invited to a party because she is likely to think that her anxiety will be so high, or even worse, for the whole party.*

What if Mary started to drink a lot at this point, or spent the rest of the party just talking to one friend? She would probably think that her anxiety decreased because she was really drunk or because her friend was with them. Next time she is invited to a party, Mary is probably going to get drunk, or take her friend with her, because she believes that this is how she can cope with social situations. We know that Mary's anxiety is going to decrease after she is at the party for a while even without her safety behaviours, but she is unable to learn this.

What if Mary's friend is unable to go to a party with her? Mary is likely to believe that she will be too anxious at the party without her friend and so she avoids going to the party

(draw a vertical line before the peak of the anxiety graph). *In this situation, Mary is also not able to learn that her anxiety will decrease naturally over time. The only way that Mary can learn that her anxiety will decrease by itself, is to go to a party and stay there, without doing any of her safety behaviours. We also know that after Mary has been to a few parties, she is likely to experience less anxiety* (draw habituation graph).

Exposure therapy is all about learning how your anxiety will decrease naturally when you gradually start to do the things that make you anxious. Initially, you will be really anxious but you need to stay in the situation, and your anxiety will decrease by itself. In exposure therapy, we will do a series of tasks that make you anxious, starting with those that make you less anxious and building to the harder ones.

Because it is usually fairly unclear what we should do in social situations, it can be difficult to tell if we have succeeded, so we need to set goals for each exposure. How do you think Mary could know if she was successful at the party? Remember, she was worried that she would embarrass herself and that everyone would think she was stupid. What do you think would happen if that were true? (Brainstorm ideas with client about what the feared outcome of the party would be – ask what it would look like if she embarrassed herself and if everyone thought she was stupid).

Okay, so we know what Mary thinks will happen. Let's pretend that she has gone to the party and she talked to a few people that she knows well, and some new friends of those friends. At one point, she spilt some of her drink on her dress. The drink was clear, and her dress was black so there was a small wet patch but no stain. (State that the expected outcomes did not happen). *What do you think Mary learnt from going to that party?* (Elicit response: e.g. even though she made a small mistake at the party, no one noticed and she made some new friends and enjoyed herself). *So a small mistake was made but all the things that Mary was afraid would happen, like everyone at the party thinking she was*

stupid, did not happen. If the idea of embarrassing herself was not clearly defined before the party, Mary may have thought that everyone did think she was stupid for spilling her drink and left the party or ruminated on the small mistake, rather than seeing that she made some new friends, and overall she had a good time.

*We will use this process of clearly defining what our goals are and how we know if the social situation was successful when we do exposures. I have a list of situations that a lot of people find cause them anxiety. I want you to number the situations in this list, by how much anxiety you think they would cause you from 0 (no anxiety at all) to 10 (unbearable anxiety).*Provide client with exposure hierarchy.

Homework

Before the next session, I'd like you to read this fact sheet about exposure and let me know if you have any questions about it. Provide client with exposure fact sheet.

SESSION FIVE

THERAPIST MATERIALS

Session symptom measure

		Not at all 0	A little bit 1	Some-what 2	Very much 3	Extremely 4
1.	Does fear of embarrassment cause you to avoid doing things or speaking to people?	☐	☐	☐	☐	☐
2.	Do you avoid activities in which you are the centre of attention?	☐	☐	☐	☐	☐
3.	Is being embarrassed or looking stupid among your worst fears?	☐	☐	☐	☐	☐

Exposures

Task	Level of Anxiety (0-10)
Asking a stranger to tell you the time/provide directions	
Asking a stranger to tell you where the library is when you are standing outside the library	
Making an appointment over the phone, then cancelling it	
Making an impromptu speech in front of a small audience	
Dropping a pile of coins in a busy café	
Giving a stranger a compliment	
Ordering some food, then saying that you cannot buy it because you forgot your wallet	
Walking around in a silly hat/wig	
Introduce yourself to a stranger	
Making a complaint about food	
Making a prepared speech in front of a small audience	
Walking into a crowded room/ lecture half way through,	
Making hands shake on purpose when around others	
Calling a friend on the phone	
Asking a question in class	
Eat in a crowded restaurant or food court	
Write in front of others	
Walk down a busy street	
Express an opinion to others	
Making small mistakes in emails/letters/text messages etc.	
Other:	
Other:	

EXPOSURE THERAPY

What is exposure therapy?

Exposure therapy is a behavioural therapy; it is the 'B' in CBT. Exposure therapy involves very gradually facing situations which cause anxiety, starting with situations which cause a little anxiety and building up to those which are most scary.

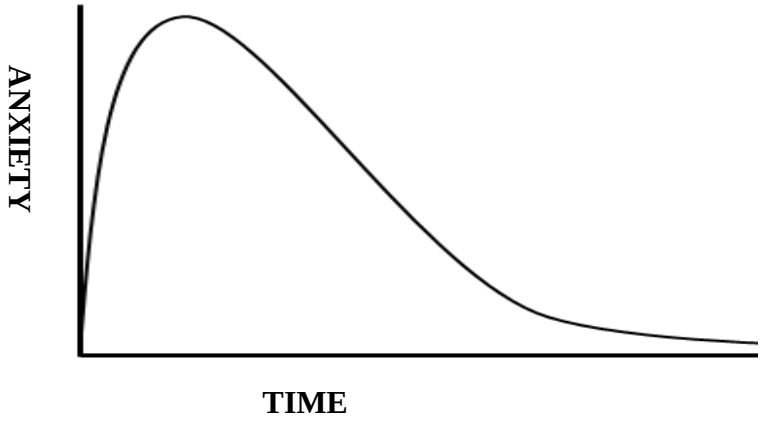
How does exposure therapy work?

Although increasing your anxiety on purpose sounds scary, it actually works to decrease anxiety in the long run. Going into an anxiety-provoking social situation will do several things:

1. Exposure therapy teaches you what happens when you do not avoid social situations. Often you will find that you can cope with situations which you are afraid of, and that your anxiety will reduce over time.

2. It is likely that exposures will provide you with evidence of what really happens in the social situation, rather than assuming the worst will happen. For this reason, it can be useful to predict what you think will happen and exactly what will happen if that is true, before going into the exposure.

3. It is likely that before many social situations your anxiety level will increase, and it will increase again when you enter the situation. Our bodies cannot sustain a high level of anxiety for a long time, so eventually your anxiety level will start to decrease. You can see this in the graph below, which we call 'the anxiety curve'. Exposure to social situations for long enough provides an opportunity for you to learn that your anxiety will decrease. If you leave this situation when your anxiety is at its maximum level, or never enter the situation, then you cannot experience the anxiety curve. The more you expose yourself to a situation, the smaller your anxiety curve will become (your peak anxiety will be lower and it will take less time for your anxiety to decrease).



SESSIONS SIX TO ELEVEN

THERAPIST MATERIALS

Sessions Six to Eleven

Sessions six to eleven will focus on graded exposure therapy. Graded exposures will be based on the ratings given to the list of exposures in session five.

In each session, the following goals should be achieved:

- Mini SPIN
- Review of homework (at home exposures)
- One or two exposures based on the exposure hierarchy developed in session five.
- Debrief about in session exposures

Session six will involve a situation which was rated by the client to induce approximately 4-5/10 anxiety level.

In the preceding sessions, exposures should gradually increase in anxiety rating. Multiple exposures may be completed in one session, or the same exposure may be completed multiple times in a session, if plausible. It should be aimed to complete a 10/10 exposure in session ten.

An example of a session plan for sessions six to eleven is outlined below.

Session number	Exposure rating
6	5/10
7	6/10 and 7/10
8	8/10
9	9/10
10	10/10
11	8/10 and 7/10

Each exposure session should follow a similar structure; the therapist should use the following example as a guide.

Example exposure session

Mini SPIN

Homework review: review at-home exposures and problem solve if necessary.

Select an exposure with an appropriate rating for the session (e.g. a rating of four or five in the sixth session).

Inform the client which situation will be the focus for exposure for the session. *What do you believe is the worst thing that could happen in this situation? Why did you rate this as a 5/10?* (for example). Brainstorm ideas with client about what they believe will happen in the situation. *How will we know if what we're predicting will happen, does happen? Remember, we need to think of concrete signs to have evidence about whether or not our predictions are correct.* Brainstorm with the client about exactly what their prediction will look like, being as specific as possible (e.g. if they believe that everyone in a café will think they are stupid, it may be predicted that 90% of the people in the café will stop what they are doing and laugh at them). Use the XXX sheet to write down the predictions and reiterate what is expected to happen in the situation.

Implement the exposure in the simplest manner possible. If necessary, the therapist may need to complete the exposure with, or before, the client. Situations may be adapted to be graded (e.g. eating in public with the therapist also eating, eating in public with the therapist sitting with them but not eating, eating in public without the therapist). Before beginning the exposure, tell the client:

Remember that we know your anxiety is likely to peak and then gradually decrease, as we saw in the graph I showed you (in session five). *Throughout the situation, I'll be asking you how high your anxiety is so that we know when it has decreased.*

Throughout each exposure, the therapist should ask the client for a Subjective Units of Distress (SUDs) rating by asking the client:

How anxious do you feel now, on a scale of 0 to 10?

A SUDs rating should be gathered as often as is plausible, depending on the exposure situation. When the client's anxiety has decreased sufficiently and is stable, ideally a rating of 0 to 3 out of 10, then the exposure may end. Then debrief about the outcome of the exposure with the client.

What happened in that situation? Were our predictions correct? Systematically evaluate each prediction. *What did you learn from the situation?* Elicit a rational evaluation of the situation. *So next time you go into a similar situation, you know that is realistic to expect* [rational evaluation of the situation].

If the predicted outcome does occur, then emphasise that the client survived the situation and now knows that they are able to deal with the outcome. If possible, also emphasise the positive outcomes of the situation.

Homework

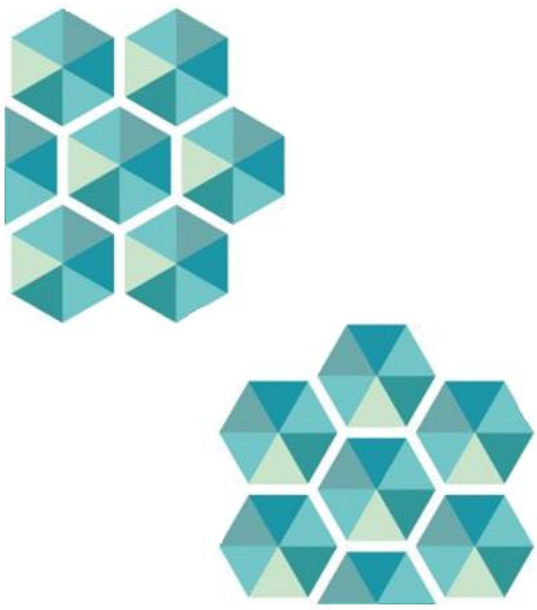
Before the next session, I would like you to try this exposure again by yourself. Remember to ask yourself how anxious you are feeling during the situation and wait for your anxiety to decrease to a zero to three before you leave the situation.

SESSIONS SIX TO ELEVEN

CLIENT MATERIALS

Session symptom measure

		Not at all 0	A little bit 1	Some-what 2	Very much 3	Extremely 4
1.	Does fear of embarrassment cause you to avoid doing things or speaking to people?	☐	☐	☐	☐	☐
2.	Do you avoid activities in which you are the centre of attention?	☐	☐	☐	☐	☐
3.	Is being embarrassed or looking stupid among your worst fears?	☐	☐	☐	☐	☐



Exposure

Situation:_____

Prediction:_____

_____

What will this situation look like if my prediction is true? (use concrete terms that you can measure)

_____

_____

_____

_____

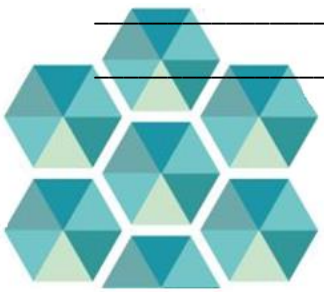
Anxiety rating during the situation

Anxiety (0-10)	Time

What did I learn from this exposure?

_____

_____



Task _____

Practice 1: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 2: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 3: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 4: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 5: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 6: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 7: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 8: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 9: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

Practice 10: Date_____Initial SUDS: _____ Time to reduce by half _____(mins)

SESSION TWELVE

THERAPIST MATERIALS

Session Twelve: Relapse Prevention

The focus of session twelve is relapse prevention.

Mini SPIN

Today we will talk about what you have achieved so far, and recap the skills you have learnt. Do you feel as though your social anxiety has improved?

Allow client to answer.

That's really great news. We'll also talk about how to maintain the progress you have made in the future.

Review of progress

In our first session, we spoke a lot about the cycle of anxiety and we talked about how common social anxiety is. We learnt that some amount of anxiety can sometimes be helpful because it can motivate us to try hard and perform well. However we also talked about how in social anxiety disorder this anxiety is often very strong and can stop us from doing things that we'd like to be able to do.

We also spoke about how thoughts and behaviours can work together to maintain anxiety and how these unhelpful thoughts and behaviours would be the target of our treatment.

Over the past few weeks we've done a good job of identifying and challenging some of these unhelpful thoughts. For instance we challenged thoughts such as XXXXXX and XXXXXX and XXXXXX. We challenged these thoughts by looking at the evidence for and against those thoughts and started to test the thoughts as hypotheses rather than fact. This is a skill that you now have and can use when you notice that you're feeling any

emotion, not just anxiety. When you notice a strong emotion it can be really useful to stop for a minute and identify your unhelpful thoughts and to challenge them. You can also practise using the more realistic thoughts that we have come up with together (give the client an example of a thought from session 2, 3, or 4). *Remember, it takes a lot of effort to change your thinking but it will become easier the more you do it. Can you think of how one of these unhelpful thoughts might have been operating for another emotion, other than anxiety?*

Probe if necessary*: When was the last time you felt sad, angry, guilty etc.? What sorts of thoughts do you think might have been going through your mind?*

After we'd learnt to identify and challenge our unhelpful thoughts *we learnt more about the unhelpful behaviours that contribute to your anxiety. We spoke about how we often feel very anxious when entering a social situation, and we tend to escape because the anxiety makes us feel uncomfortable. Do you remember why we said that escape and avoidance of social situations was unhelpful?*

Allow client to answer

That's right; when people avoid or escape they do not learn that they can cope and that their anxiety will decrease over time. We talked about the anxiety curve and some people find it helpful to keep the anxiety curve in their mind to remind themselves that their anxiety will decrease over time.

Do you remember what happens with the curve when we keep practicing entering the situations?

That's right … the more you practice, the less anxiety you will feel initially and the faster your anxiety will reduce; it will become a smaller curve over time.

We have tested out this idea with a few different situations (provide examples of exposure situations that the client completed in therapy). *Obviously we haven't had the opportunity to do an exposure for every situation that you will come across, so I'd like you to try to get through the ones that we missed between now and when I speak to you again in three months' time. Remember that you can do them over and over again until you feel less anxious. Ideally, we'd like you to do them until they are really boring for you and don't cause you any anxiety. The more you push yourself, the more comfortable you will feel in social situations, so it is important to continue using the skills that you have developed over the past four weeks.*

Lapse versus relapse

At the end of the treatment we like to talk to people about what we call a lapse and a relapse. Have you heard of these terms before?

Allow client to describe…

That's right…It is likely that occasionally you will have a bad day and you may notice that you are anxious about an upcoming social situation. You may notice that you're experiencing some of the old unhelpful thoughts or that you are considering avoiding the social situation. While bad days are common, when this happens consistently over a couple of days we call it a 'lapse'. A lapse does not mean that you are back to where you started; it just means you're having a bad day or a bad time. A lapse can be a good

opportunity for learning. It can remind you that you need to start putting the skills that you learnt back into practice.

When you start to have a few of these bad days a lot, and you start to feel that social anxiety is affecting your life as much as it was before you began treatment – we call this a relapse. This is when your symptoms have returned to the level they were at before you started treatment. We want to prevent relapses from happening if we can. The best way to do this is to think about your early warning signs ahead of time, so that you can put a plan into place as soon as you notice a lapse, then you can prevent a relapse.

Relapse warning signs

There are several common warning signs of a relapse that people can watch out for. Firstly, you might notice that you are avoiding a lot of social interactions or using safety behaviours. You might also notice that you think that you can't cope with social situations. What are some thoughts and behaviours that might be a warning sign of a lapse for you?

The therapist should elicit specific thoughts and behaviours and have the client write them on the appropriate section of the relapse prevention form.

Relapse prevention strategies

When you notice signs of a relapse, try to take a moment to notice your thoughts and challenge the unhelpful thoughts. Also try to avoid avoiding and other safety behaviours. You have already learned all the skills you need to overcome social anxiety; you just need to remember to use them. Let's think of some helpful ways to prevent a relapse when you notice these warning signs.

Elicit appropriate actions to prevent relapse and have the client write them on the appropriate section of the relapse prevention form. Attempt to have a corresponding action for each warning sign.

This list warning signs and action plan is for you to keep handy, maybe in your wallet or on your desk, so that it can prompt you to take action when you notice a relapse warning sign. Do you think that you are able to work on your social anxiety alone in the next three months? If you feel that you need to continue treatment, then you can let me know. If you feel as though you have relapsed, then seeking help is always an option.

Complete the social anxiety disorder section of the DIAMOND

Complete post-treatment questionnaires online

SESSION TWELVE

CLIENT MATERIALS

Session symptom measure

		Not at all 0	A little bit 1	Some-what 2	Very much 3	Extremely 4
1.	Does fear of embarrassment cause you to avoid doing things or speaking to people?	☐	☐	☐	☐	☐
2.	Do you avoid activities in which you are the centre of attention?	☐	☐	☐	☐	☐
3.	Is being embarrassed or looking stupid among your worst fears?	☐	☐	☐	☐	☐

Relapse Prevention

My early warning signs

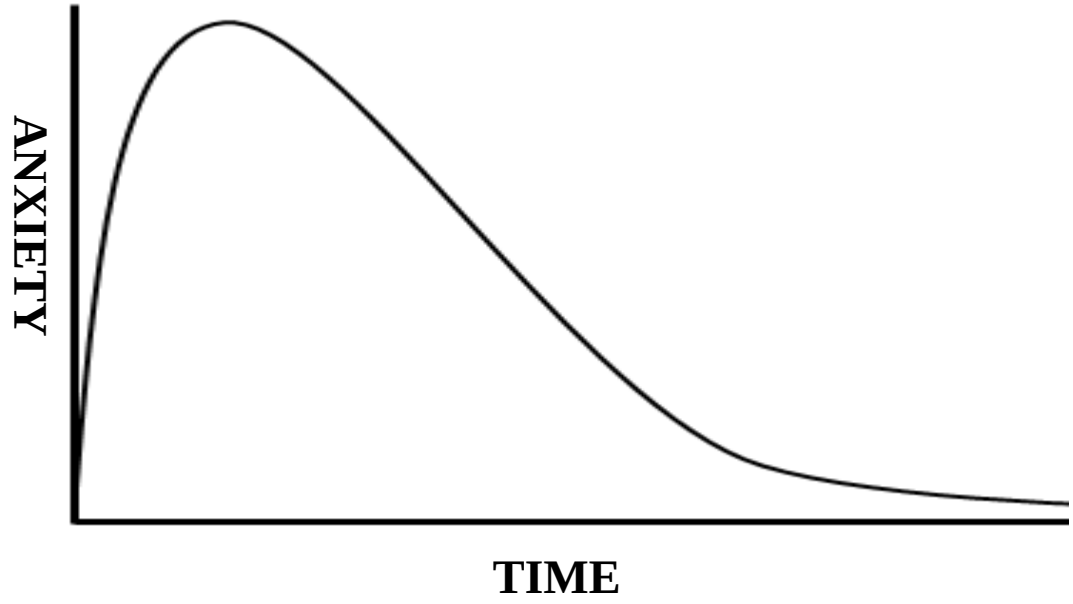
Thoughts:

Behaviours:

My action plan

What can I do if I notice these warning signs?

Anxiety curve



Appendix H

Online Participant Information Sheet

Participant Information Sheet V3 (26.07.14)

PARTICIPANT INFORMATION SHEET

Intensive Cognitive Behavioural Therapy for Social Anxiety Disorder: A Pilot Study

You are invited to participate in a research study that aims to investigate the effectiveness of intensive individual cognitive behavioural therapy (CBT) as a treatment option for outpatients with social anxiety disorder (SAD). This study is being conducted by Alexandra Hunn as part of her Master of Clinical Psychology program at the University of Tasmania, and is being supervised by Dr Bethany Wootton, Lecturer, School of Medicine (Psychology).

1. What is the purpose of this study?

The purpose of this study is to investigate the efficacy of intensive individual cognitive behavioural therapy for SAD. The treatment format is three, one hour-long sessions each week for four weeks (total of 12 hours over four weeks). This treatment is provided face to face with a provisional psychologist (Miss Alexandra Hunn or Miss Amy MacGregor), who is closely supervised by a registered clinical psychologist (Dr. Wootton).

2. Why have I been invited to participate in this study?

You are invited to participate in this study because you are aged 14 years or over and have concerns about symptoms of social anxiety.

3. What does this study involve?

If you choose to participate in this study, you will be required to:

a. Complete some questionnaires online to give us some further information about you and your symptoms. It is expected that this will take about 20 minutes.

b. Complete a brief telephone interview with one of the study therapists who will ask you questions about yourself and your symptoms to ensure that you are suitable for the study. It is expected that this will take about 15 minutes.

c. Meet with one of the study therapists (a provisional psychologist) at the university clinic for an initial intake session in which you will be asked about symptoms of social anxiety and other psychological conditions.

d. Attend three therapy sessions per week for four weeks. Each therapy session is one hour in duration. You will also be asked to complete homework tasks provided by the therapist. Therapy will be delivered by a study therapist who is provisional psychologist, under supervision of a registered clinical psychologist. The treatment will take place at the University Psychology Clinic, a free clinic run by the University of Tasmania to train provisional clinical psychologists. Each of the sessions with be audiotaped and some sessions may also be videorecorded for training purposes or for treatment purposes. You will also receive a phone call from one of the study therapists on each non-treatment weekday to assess your symptoms and level of distress.

e. You will complete the questionnaires online and a small section of the interview again at the end of the 4 week treatment and three months after treatment has concluded. At this time you will be asked if you would like to receive further support. If you would like ongoing support you will be referred to an appropriate service in the community. We will continue to monitor you until you are linked up with the new treatment provider.

It is important that you understand that your involvement in this study is voluntary. While we would be pleased to have you participate, we respect your right to decline. There will be no consequences to you if you decide not to participate. If you decide to discontinue participation at any time, you may do so without providing an explanation.

All information collected from you will be treated in a confidential manner, and your name will not be used in any publication arising out of the research. However, if we are concerned about your safety, or the safety of others, then we may need to notify local mental health services.

All of the research data will be kept on a password-protected computer. Hard copy data will be kept for at least seven (7) years from the end of your treatment. Electronic data will be securely stored until it is no longer necessary. All videotaped sessions will be destroyed after your treatment ends, but the audiotaped information will be de-identified and kept for a period of five (5) years.

4. Are there any possible benefits from participation in this study?

Yes. You will receive free cognitive behavioural therapy for social anxiety disorder and we expect that you will experience a decrease in social anxiety symptoms. However we cannot and do not guarantee that symptom reduction will occur.

5. Are there any possible risks from participation in this study?

In the course of therapy, participants may find that tasks may evoke anxiety, embarrassment, or stress as CBT involves gradually facing your fears. These risks are not beyond what would be expected in a course of CBT with a fully registered clinical psychologist.

In the current study the method of delivery is considered experimental (sessions are more frequent than is usually provided). Additionally your treatment will be delivered by a provisional psychologist (under the close supervision of a registered clinical psychologist).

It is possible that you may experience distress or discomfort during your treatment in this study. If this occurs please contact the chief investigator of the study on 03) 6226 7124. If it is an emergency situation please contact the mental health services helpline on 1800 332 388. If you would prefer an alternative treatment please contact the University Psychology Clinic on 03) 6226 2805.

6. What if I have questions about this research?

If you would like to discuss any aspect of this study please feel free to contact Dr Wootton on (03) 6226 7124. Dr. Wootton would be happy to discuss any aspect of the research with you. You are also able to contact Dr Wootton in October 2015 to get a summary of the results if you wish to do so.

This study has been approved by the Tasmania Social Sciences Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study should contact the Executive Officer of the HREC (Tasmania) Network on (03) 6226 7479 or email human.ethics@utas.edu.au. The Executive Officer is the person nominated to receive complaints from research participants. You will need to quote [H14034].

Thank you for taking the time to consider participation in this study.

Dr Bethany Wootton (Chief Investigator)

Alexandra Hunn (Student Investigator)

Appendix I

Online Consent Form

FACULTY OF HEALTH

Participant Consent Form V2 (02.07.14)

CONSENT FORM

Title of Project: Intensive Cognitive Behavioural Therapy for Social Anxiety Disorder: A Pilot Study

1. I have read and understood the 'Information Sheet' for this project.

2. I understand that the study involves:

   a. Answering some online questionnaires

   b. Completing a brief telephone interview

   c. Completing an in-person interview

   d. Completing 3, 60 minutes sessions of cognitive-behavioural therapy for four weeks (12 hours total) at the University Psychology Clinic.

   e. Completing some questionnaires and a brief interview immediately after the treatment ends and 3 months after the treatment ends.

3. I understand that as part of therapy, I will be asked to complete behavioural tasks during session times and specific homework tasks out of session, which may provoke some anxiety.

4. I understand that the therapy I will receive will be delivered by a provisional psychologist, under the close supervision of a registered clinical psychologist. Sessions will be audiotaped and some sessions may be recorded for training or treatment purposes.

5. I understand that the treatment I will be receiving is free of charge and that there is no payment for participation in this study.

5. I understand that all research data will be securely stored on the University of Tasmania premises for at least seven years, and will then be destroyed when no longer required.

6. I agree that research data gathered from me for the study may be published provided that I cannot be identified as a participant.

7. I understand that the researchers will maintain my confidentiality and that any information I supply to the researcher(s) will be used only for the purposes of the research. However, I understand that there are limits to the confidentiality of certain information (described in the informational sheet).

8. I agree to participate in this investigation and understand that I may withdraw at any time without any effect, and if I so wish, may request that any data I have supplied to date be withdrawn from the research.

10. I understand that this research has been approved by the Tasmanian Social Sciences Human Research Ethics Committee [project number: **H14034**].

[]

If you wish to take part in this study please click the "Yes" below to complete online questionnaires.

I consent:

*

Please choose **only one** of the following:

- ○ Yes
- ○ No

Appendix J

Pre-Treatment Survey

SPIN

[]For each item, please indicate the degree to which you feel the statement is characteristic or true for you. *

Please choose the appropriate response for each item:

	Not at all	A little bit	Somewhat	Very much	Extremely
I am afraid of people in authority.	○	○	○	○	○
I am bothered by blushing in front of people.	○	○	○	○	○
Parties and social events scare me.	○	○	○	○	○
I avoid talking to people I don't know.	○	○	○	○	○
Being criticised scares me a lot.	○	○	○	○	○
I avoid doing things or speaking to people for fear of embarrassment.	○	○	○	○	○
Sweating in front of people causes me distress.	○	○	○	○	○
I avoid going to parties.	○	○	○	○	○
I avoid activities in which I am the centre of attention.	○	○	○	○	○
Talking to strangers scares me.	○	○	○	○	○
I avoid having to give speeches.	○	○	○	○	○
I would do anything to avoid being criticised.	○	○	○	○	○
Heart palpitations bother me when I am around people.	○	○	○	○	○
I am afraid of doing things when people might be watching.	○	○	○	○	○
Being embarrassed or looking stupid are among my worst fears.	○	○	○	○	○
I avoid speaking to anyone in authority.	○	○	○	○	○
Trembling or shaking in front of others is distressing to me.	○	○	○	○	○

SIAS

[]*For each item, please indicate the degree to which you feel the statement is characteristic or true for you.* *

Please choose the appropriate response for each item:

	Not at all	Slightly	Moderately	Very	Extremely
I get nervous if I have to speak with someone in authority (teacher, boss, etc.).	○	○	○	○	○
I have difficulty making eye contact with others.	○	○	○	○	○
I become tense if I have to talk about myself or my feelings.	○	○	○	○	○
I find it difficult to mix comfortably with the people I work with.	○	○	○	○	○
I find it easy to make friends my own age	○	○	○	○	○
I tense up if I meet an acquaintance in the street.	○	○	○	○	○
When mixing socially, I am uncomfortable.	○	○	○	○	○
I feel tense if I am alone with just one other person.	○	○	○	○	○
I am at ease meeting people at parties, etc.	○	○	○	○	○
I have difficulty talking with other people.	○	○	○	○	○
I find it easy to think of things to talk about.	○	○	○	○	○
I worry about expressing myself in case I appear awkward.	○	○	○	○	○
I find it difficult to disagree with another's point of view.	○	○	○	○	○
I have difficulty talking to attractive persons of the opposite sex.	○	○	○	○	○
I find myself worrying that I won't know what to say in social situations.	○	○	○	○	○
I am nervous mixing with people I don't know well.	○	○	○	○	○
I feel I'll say something embarrassing when talking.	○	○	○	○	○
When mixing in a group, I find myself worrying I will be ignored.	○	○	○	○	○
I am tense mixing in a group.	○	○	○	○	○
I am unsure whether to greet someone I know only slightly.	○	○	○	○	○

SPS

[]*For each item, please indicate the degree to which you feel the statement is characteristic or true for you.* *

Please choose the appropriate response for each item:

	Not at all	Slightly	Moderately	Very	Extremely
I become anxious if I have to write in front of other people	○	○	○	○	○
I become self-conscious when using public toilets	○	○	○	○	○
I can suddenly become aware of my own voice and of others listening to me	○	○	○	○	○
I get nervous that people are staring at me as I walk down the street	○	○	○	○	○
I fear I may blush when I am with others	○	○	○	○	○
I feel self-conscious if I have to enter a room where others are already seated	○	○	○	○	○
I worry about shaking or trembling when I'm watched by other people	○	○	○	○	○
I would get tense if I had to sit facing other people on a bus or a train	○	○	○	○	○
I get panicky that others might see me to be faint, sick or ill	○	○	○	○	○
I would find it difficult to drink something if in a group of people	○	○	○	○	○
It would make me feel self-conscious to eat in front of a stranger at a restaurant	○	○	○	○	○
I am worried people will think my behaviour odd	○	○	○	○	○
I would get tense if I had to carry a tray across a crowded cafeteria	○	○	○	○	○
I worry I'll lose control of myself in front of other people	○	○	○	○	○
I worry I might do something to attract the attention of others	○	○	○	○	○
When in an elevator I am tense if people look at me	○	○	○	○	○
I can feel conspicuous standing in a queue	○	○	○	○	○
I get tense when I speak in front of other people	○	○	○	○	○
I worry my head will shake or nod in front of others	○	○	○	○	○
I feel awkward and tense if I know people are watching me	○	○	○	○	○

Sheehan Disability Scale

[]

Please mark ONE circle for each scale.

WORK* / SCHOOL

The symptoms have disrupted your work / school work:

**** Work includes paid, unpaid volunteer work or training.***

Please choose the appropriate response for each item:

	0 Not at all	1	2 Mildly	3	4	5 Moderately	6	7	8 Markedly	9	10 Extremely
SCHOOL/ WORK*:	○	○	○	○	○	○	○	○	○	○	○

[]I have not worked/ studied at all during the past week for reasons unrelated to the disorder.

Please choose **all** that apply:

☐

[]

Please mark ONE circle for each scale.

SOCIAL LIFE

The symptoms have disrupted your social life / leisure activities:

*

Please choose the appropriate response for each item:

	0 Not at all	1	2 Mildly	3	4	5 Moderately	6	7	8 Markedly	9	10 Extremely
SOCIAL LIFE:	○	○	○	○	○	○	○	○	○	○	○

[]

Please mark ONE circle for each scale.

FAMILY LIFE / HOME RESPONSIBILITIES

The symptoms have disrupted your family life / home responsibilities:

*

Please choose the appropriate response for each item:

	0 Not at all	1	2 Mildly	3	4	5 Moderately	6	7	8 Markedly	9	10 Extremely
FAMILY LIFE/ HOME RESPONSIBILITIES	○	○	○	○	○	○	○	○	○	○	○

[]

Days Lost

On how many days in the last week did your symptoms cause you to miss school or work or leave you unable to carry out your normal daily responsibilities?

*

Please write your answer here:

[]

Days Unproductive

On how many days in the last week did you feel so impaired by your symptoms, that even though you went to school or work, your productivity was reduced?

*

Please write your answer here:

DASS

[]*Please read each statement and choose an option which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.* *

Please choose the appropriate response for each item:

	Never	Sometimes	Often	Almost Always
I found it hard to wind down	○	○	○	○
I was aware of dryness of my mouth	○	○	○	○
I couldn't seem to experience any positive feeling at all	○	○	○	○
I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	○	○	○	○
I found it difficult to work up the initiative to do things	○	○	○	○
I tended to over-react to situations	○	○	○	○
I experienced trembling (eg, in the hands)	○	○	○	○
I felt that I was using a lot of nervous energy	○	○	○	○
I was worried about situations in which I might panic and make a fool of myself	○	○	○	○
I felt that I had nothing to look forward to	○	○	○	○
I found myself getting agitated	○	○	○	○
I found it difficult to relax	○	○	○	○
I felt down-hearted and blue	○	○	○	○
I was intolerant of anything that kept me from getting on with what I was doing	○	○	○	○
I felt I was close to panic	○	○	○	○
I was unable to become enthusiastic about anything	○	○	○	○
I felt I wasn't worth much as a person	○	○	○	○
I felt that I was rather touchy	○	○	○	○
I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	○	○	○	○
I felt scared without any good reason	○	○	○	○
I felt that life was meaningless	○	○	○	○

DIAMOND

Please read the following statements and choose YES or NO to indicate whether each statement applies to you.

[]I have frequent thoughts, urges, or images that I don't what to have (for example, thoughts about being contaminated even though I may not be, or that I may hurt someone else even though I don't want to). *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I do repetitive behaviours (for example, hand washing or cleaning, ordering or arranging, checking things, or repeating behaviours over and over), or I repeatedly do things in my mind (for example, counting, saying certain words or phrases) in order to feel better or to prevent something bad from happening. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I spend a lot of time worrying about my physical appearance. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]My house is excessively cluttered. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I frequently pull out hair from my scalp or my body. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I frequently pick at my skin. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I get very anxious or fearful in social situations or when I am being observed. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have had a panic attack, when I experienced a lot of fear and physical sensations that came out of the blue. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I feel very fearful or anxious in situations where it's difficult to escape quickly or get help (for example, using public transportation, being in open or enclosed spaces, standing in line or being in a crowded place or being alone away from home). *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I feel excessively anxious or worried about many things, a lot of the time (for example, worry about finances, responsibilities at work/school, my health or the health of others). *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]There are certain objects, situations, or activities that I am very afraid of (for example, like animals, insects, blood, needles, heights, storms, flying, choking, vomiting, or enclosed spaces). *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I feel very afraid to be away from a certain person or people. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have had a period of four days or more when my mood was so good or elevated, like I was on top of the world, that it caused problems for me, or people thought I wasn't my usual self. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have been feeling down, blue, or depressed frequently over the past two years. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have had a time when I felt very sad, blue, down, or depressed, or lost interest or pleasure in my usual activities, for two weeks or more. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[](For women only) I get really depressed, irritable, anxious, or have mood swings in the week prior or menstruation (my period). *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I am distressed about a really bad event (like seeing something that was life- threatening or caused someone to die, being seriously injured or seeing someone be sexually assaulted or molested) that I have experienced or witnessed. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I am having a hard time dealing with a stressful or unpleasant experience, or a major change in my life. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]

I have had very strong beliefs in something that other people thought were strange, such as any of the following:

a. That people were conspiring against me, spying on me, or harassing me

b. That a government or religious organisation was following me or harassing me

c. That someone I didn't know, such as a celebrity, was in love with me

d. That I had special talents or powers, or that I was famous

e. That there was something very strange going on with my body

f. That someone had removed thoughts from my mnd, placed thoughts in my mind, or read my mind

g. That someone or something was controlling my movements and actions

h. That someone was sending me special messages through the TV, radio, or books

i. That I did not exist, that the world did not exist, or that the world was ending

j. That a partner was being unfaithful to me

k. That I was responsible for a disaster or serious crime and needed to be punished

*

Please choose only one of the following:

- ○ Yes
- ○ No

[]

I have had sensory experiences that others could not understand, such as:

a. Hearing sounds that others couldn't hear, such as voices or music

b. Seeing things that others couldn't see, such as colours, animals, people, or spirits

c. Having unusual sensations in my body, such as a feeling of electric shocks or bugs on mr

d. Smelling odours that others could not smell, such as vomit, faeces, or something rotting

*

Please choose only one of the following:

- ○ Yes
- ○ No

[]I avoid eating food because I think I am overweight. *

Please choose only one of the following:

- ○ Yes
- ○ No

[]I often have eating "binges", in which I eat more that most people would eat, and it feels like my eating is out of control. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I eat very little, have difficulty eating enough, or avoid certain foods. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have a physical health problem that makes me very worried or anxious, or requires me to do a lot to diagnose or monitor it. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I often worry that I have a serious medical illness or injury, or that I am going to develop a serious medical illness or injury. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have had 3 or more alcoholic drinks within a 3 hour period on 3 or more occasions. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have used illegal drugs, or I have used prescription medications other than how they were prescribed, more than three times. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have difficulty paying attention or concentrating when I need to. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have difficulty paying attention or concentrating when I need to. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]It often seems that I have difficulty sitting still or waiting for things. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]I have a lot of sudden movements (tics) that are hard to control, or make sounds that are hard to control. *

Please choose **only one** of the following:

- ○ Yes
- ○ No

Thank you for your time.

If you are experiencing a mental health emergency please contact the mental health service helpline on 1800 332 388

If you would prefer an alternative treatment outside of this research study an alternative option may be the university psychology clinic which you can contact on (03) 6226 2805

Appendix K

Telephone Interview Script

Intensive Cognitive Behaviour Therapy for Social Anxiety Disorder: A Pilot Study

Phone Interview

Name……. Phone…….. Age……

Hello,

This is Amy/Alex calling from the University of Tasmania Social Anxiety study. I am calling to follow up on the internet questions that you filled out on _____ (date). Because this is a research study, we have a number of questions to ask to ensure that you are eligible. Do you have time right now?

If 'Yes' continue

If 'No' make a time to call back. Rescheduled date/time:

_____

Have you read the information sheet online?

If 'Yes' continue

If 'No' provide brief information on the study (below)

This study aims to investigate the benefits of intensive cognitive-behavioural therapy as a treatment option for social anxiety disorder. Standard CBT treatment for social anxiety disorder usually involves one session per week for twelve weeks, however the treatment in this study will involve twelve 60 minute treatment sessions across four consecutive weeks. The sessions will be on Mondays, Wednesdays and Fridays at the University of Tasmania psychology clinic.

Do you have any questions about this?

If 'Yes' continue

If 'No' end interview here

After reading the information sheet and/or hearing this information are you still interested in participating in the study?

If 'Yes' continue

If 'No' end interview here and thank participant for their time

Can you tell me about your symptoms of anxiety? How is anxiety affecting your life right now? What sorts of things are you afraid to do or what places are you afraid to go because of your anxiety?

_____

_____

_____

_____

Are you available to attend the 60 minute session Mondays, Wednesdays, and Fridays for four consecutive weeks?

If 'Yes' continue

If 'No' explain that the study requires participants to do this so they will not be eligible for the study.

Have you ever had treatment for social anxiety before?

If 'Yes' ask about previous treatments – how many sessions, what kinds of techniques were practiced in sessions, was homework assigned?

_____

_____

_____

_____

If 'No' continue

Sometimes, when people experience anxiety and depression they can have thoughts of ending their life. Have you ever had any thoughts like this?

If 'Yes' complete the suicide risk questionnaire (C-SSRS)

If 'No' continue

SUICIDAL IDEATION	
Ask questions 1 and 2. If both are negative, proceed to "Suicidal Behavior" section. If the answer to question 2 is "yes", ask questions 3, 4 and 5. If the answer to question 1 and/or 2 is "yes", complete "Intensity of Ideation" section below.	Lifetime: Time He/She Felt Most Suicidal
1. Wish to be Dead Subject endorses thoughts about a wish to be dead or not alive anymore, or wish to fall asleep and not wake up. ***Have you wished you were dead or wished you could go to sleep and not wake up?*** If yes, describe:	Yes □ No □
2. Non-Specific Active Suicidal Thoughts General, non-specific thoughts of wanting to end one's life/commit suicide (e.g., "I've thought about killing myself") without thoughts of ways to kill oneself/associated methods, intent, or plan. ***Have you actually had any thoughts of killing yourself?*** If yes, describe:	Yes □ No □
3. Active Suicidal Ideation with Any Methods (Not Plan) without Intent to Act Subject endorses thoughts of suicide and has thought of at least one method during the assessment period. This is different than a specific plan with time, place or method details worked out (e.g., thought of method to kill self but not a specific plan). Includes person who would say, "I thought about taking an overdose but I never made a specific plan as to when, where or how I would actually do it…and I would never go through with it." ***Have you been thinking about how you might do this?*** If yes, describe:	Yes □ No □
4. Active Suicidal Ideation with Some Intent to Act, without Specific Plan Active suicidal thoughts of killing oneself and subject reports having some intent to act on such thoughts, as opposed to "I have the thoughts but I definitely will not do anything about them." ***Have you had these thoughts and had some intention of acting on them?*** If yes, describe:	Yes □ No □
5. Active Suicidal Ideation with Specific Plan and Intent Thoughts of killing oneself with details of plan fully or partially worked out and subject has some intent to carry it out. ***Have you started to work out or worked out the details of how to kill yourself? Do you intend to carry out this plan?***	Yes □ No □

If yes, describe:	
INTENSITY OF IDEATION	
The following features should be rated with respect to the most severe type of ideation (i.e., 1-5 from above, with 1 being the least severe and 5 being the most severe). Ask about time he/she was feeling the most suicidal. ***Most Severe Ideation:*** _____ _____ ***Type # (1-5)*** ***Description of Ideation***	Most severe
Frequency ***How many times have you had these thoughts?*** (1) Less than once a week (2) Once a week (3) 2-5 times in week (4) Daily or almost daily (5) Many times each day	____
Duration ***When you have the thoughts, how long do they last?*** (1) Fleeting - few seconds or minutes (4) 4-8 hours/most of day (2) Less than 1 hour/some of the time (5) More than 8 hours/persistent or continuous (3) 1-4 hours/a lot of time	____
Controllability ***Could/can you stop thinking about killing yourself or wanting to die if you want to?*** (1) Easily able to control thoughts (4) Can control thoughts with a lot of difficulty (2) Can control thoughts with little difficulty (5) Unable to control thoughts (3) Can control thoughts with some difficulty (0) Does not attempt to control thoughts	____
Deterrents ***Are there things - anyone or anything (e.g., family, religion, pain of death) - that stopped you from wanting to die or acting on thoughts of committing suicide?*** (1) Deterrents definitely stopped you from attempting suicide (4) Deterrents most likely did not stop you (2) Deterrents probably stopped you (5) Deterrents definitely did not stop you (3) Uncertain that deterrents stopped you (0) Does not apply	____
Reasons for Ideation ***What sort of reasons did you have for thinking about wanting to die or killing yourself? Was it to end the pain or stop the way you were feeling (in other words you couldn't go on living with this pain or how you were feeling) or was it to get attention, revenge or a reaction from others? Or both?*** (1) Completely to get attention, revenge or a reaction from others (4) Mostly to end or stop the pain (you couldn't go on living with the (2) Mostly to get attention, revenge or a reaction from others pain or how you were feeling) (3) Equally to get attention, revenge or a reaction from others (5) Completely to end or stop the pain (you couldn't go on living with and to end/stop the pain. the pain or how you were feeling) (0) Does not apply	____
SUICIDAL BEHAVIOR	
Actual Attempt: A potentially self-injurious act committed with at least some wish to die, as a result of act. Behavior was in part thought of as method to kill oneself. Intent does not have to be 100%. If there is any intent/desire to die associated with the act, then it can be considered an actual suicide attempt. There does not have to be any injury or harm, just the potential for injury or harm. If person pulls trigger while gun is in mouth but gun is broken so no injury results, this is considered an attempt. Inferring Intent: Even if an individual denies intent/wish to die, it may be inferred clinically from the behavior or circumstances. For example, a highly lethal act that is clearly not an accident so no other intent but suicide can be inferred (e.g., gunshot to head, jumping from window of a high floor/story). Also, if someone denies intent to die, but they thought that what they did could be lethal, intent may be inferred. **Have you made a suicide attempt?** **Have you done anything to harm yourself?** **Have you done anything dangerous where you could have died?** **What did you do?** **Did you_____ as a way to end your life?** **Did you want to die (even a little) when you_____?** **Were you trying to end your life when you _____?** **Or did you think it was possible you could have died from_____?** **Or did you do it purely for other reasons / without ANY intention of killing yourself (like to relieve stress, feel better, get sympathy, or get something else to happen)?** (Self-Injurious Behavior without suicidal intent) If yes, describe: Has subject engaged in Non-Suicidal Self-Injurious Behavior?	Yes No □ □ Total # of Attempts _____ Yes No □ □
Interrupted Attempt:	Yes No □ □

When the person is interrupted (by an outside circumstance) from starting the potentially self-injurious act (if not for that, actual attempt would have occurred). Overdose: Person has pills in hand but is stopped from ingesting. Once they ingest any pills, this becomes an attempt rather than an interrupted attempt. Shooting: Person has gun pointed toward self, gun is taken away by someone else, or is somehow prevented from pulling trigger. Once they pull the trigger, even if the gun fails to fire, it is an attempt. Jumping: Person is poised to jump, is grabbed and taken down from ledge. Hanging: Person has noose around neck but has not yet started to hang - is stopped from doing so. **Has there been a time when you started to do something to end your life but someone or something stopped you before you actually did anything?** If yes, describe**:**	Total # of interrupted _____
Aborted Attempt: **When person begins to take steps toward making a suicide attempt, but stops themselves before they actually have engaged in any self-destructive behavior.** **Examples are similar to interrupted attempts, except that the individual stops him/herself, instead of being stopped by something else.** **Has there been a time when you started to do something to try to end your life but you stopped yourself before you** **actually did anything?** **If yes, describe:**	Yes □ No □ Total # of aborted _____
Preparatory Acts or Behavior: Acts or preparation towards imminently making a suicide attempt. This can include anything beyond a verbalization or thought, such as assembling a specific method (e.g., buying pills, purchasing a gun) or preparing for one's death by suicide (e.g., giving things away, writing a suicide note). **Have you taken any steps towards making a suicide attempt or preparing to kill yourself (such as collecting pills, getting a gun,** **giving valuables away or writing a suicide note)?** If yes, describe:	Yes □ No □
Suicidal Behavior: Suicidal behavior was present during the assessment period?	Yes □ No □
Completed Suicide:	Yes □ No □

Thank you for your time today. That is all the questions I have. Are there any questions I can answer for you?

If 'Yes' answer questions
If 'No' continue

☐ Age 18-65

☐ Symptoms of social anxiety disorder

☐ Low suicide risk (no suicide ideation or suicide ideation without intent or plan)

☐ Able to attend sessions

☐ No prior nonresponse to treatment

Participants is

☐ Suitable

☐ Unsuitable

If suitable: *Thank you for your time today – it looks like the study will be a good match for you. We would like to organize a time for you to come in for your intake assessment. What would be a good time for you?*

Intake Appointment

Date…….. Time…….. With ……

Can we have your home address or email address to send out your welcome letter and map of the campus so that you can find our clinic?

_____

_____

_____

If unsuitable: *Unfortunately, because this is a research study we do have quite strict study entry requirements. Unfortunately at this stage it does not look like you are suitable for our study and we will not be able to include you at this time. You may wish to discuss your symptoms with your General Practitioner (or I can give you the number of the University Psychology Clinic (if suitable). Thank you for your time.*

Appendix L

Written Consent Form

School of Medicine (Psychology)

Participant Consent Form V1 (24.04.14)

CONSENT FORM

<u>Title of Project:</u> Intensive Cognitive Behavioural Therapy for Social Anxiety Disorder: A Pilot Study

1. I have read and understood the 'Information Sheet' for this project.
2. I understand that the remaining study components involve:
    a. Completing an in-person interview
    b. 3, 60 minutes sessions of cognitive-behavioural therapy for four weeks (12 hours total) at the University of Tasmania Psychology Clinic
    c. Complete some questionnaires online and a brief interview (over the phone) immediately after the treatment ends and 3 months after the treatment ends.
3. The nature and possible effects of the study have been explained to me.
4. I understand that as part of therapy, I will be asked to complete behavioural tasks during session times and specific homework tasks out of session, which may provoke anxiety.
5. I understand that the therapy I will receive will be delivered by a provisional psychologist, under the supervision of a fully-registered clinical psychologist. Sessions will be audiotaped and some sessions may be recorded for training or treatment purposes.
6. I understand that the treatment I will be receiving is free of charge and that there is no payment for participation in this study.
7. I understand that all research data will be securely stored on the University of Tasmania premises for at least seven years, and will then be destroyed when no longer required.
8. I agree that research data gathered from me for the study may be published provided that I cannot be identified as a participant.
9. I understand that the researchers will maintain my confidentiality and that any information I supply to the researcher(s) will be used only for the purposes of the research. However, I understand that there are limits to the confidentiality of certain information.

10. I agree to participate in this investigation and understand that I may withdraw at any time without any effect, and if I so wish, may request that any data I have supplied to date be withdrawn from the research.

11. Any questions that I have asked have been answered to my satisfaction.

12. I understand that this research has been approved by the Tasmania Social Sciences Human Research Ethics Committee **[**project number: H14034].

Name of Participant:_____

Signature:_____ Date:_____

Name of Parent/Guardian (if relevant)

_____

Signature:_____ Date:_____

Statement by Investigator

I have explained the project & the implications of participation in it to this participant (and parent/guardian if relevant) and I believe that the consent is informed and that he/she understands the implications of participation.

Name of investigator:

_____

Signature of investigator: _____

Date:_____

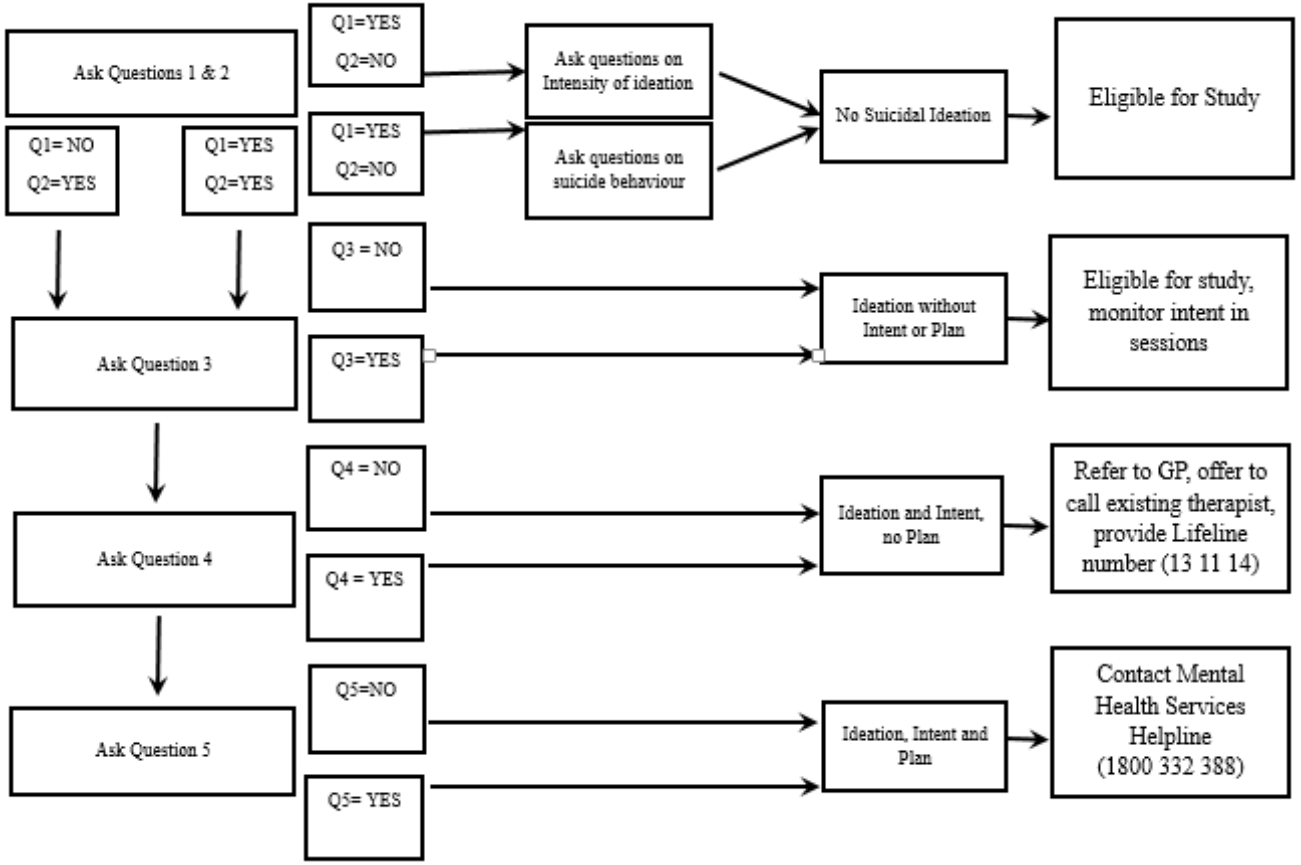
Appendix M

SAD Module of the DIAMOND

This appendix has been removed for copyright or proprietary reasons.

Appendix N

Suicide Risk Action Flow Chart



Appendix O

Treatment Satisfaction Questionnaire

[]Would you recommend this treatment to a friend with Social Anxiety? *

Please choose **only one** of the following:

- ○ Yes
- ○ No

[]

We would appreciate your feedback. Please rate the following questions from 1 (not at all) to 5 (extremely).

*

Please choose the appropriate response for each item:

	1	2	3	4	5
How satisfied were you with the treatment you received?	○	○	○	○	○
How logical was the treatment?	○	○	○	○	○
Was the treatment worth your time?	○	○	○	○	○

[]

What is important to you in the treatment of social anxiety (eg. cost, total length of time for treatment, number of face-to-face hours with the therapist etc.)?

*

Please write your answer here:

Appendix P

Table of Assessments Completed by Participants

Participant	Pre-Treatment		Post-Treatment		3 month follow up	
	Outcome Measures	Diagnostic Assessment	Outcome Measures	Diagnostic Assessment	Outcome Measures	Diagnostic Assessment
1	Completed	Completed	Not Completed	Not Completed	Not Completed	Not Completed
2	Completed	Completed	Completed	Not Completed	Not Completed	Not Completed
3	Completed	Completed	Completed	Completed	Completed	Completed
4	Completed	Completed	Completed	Completed	Completed	Not Completed
5	Completed	Completed	Completed	Completed	Completed	Completed
6	Completed	Completed	Completed	Completed	Completed	Completed
7	Completed	Completed	Completed	Completed	Completed	Completed
8	Completed	Completed	Completed	Completed	Completed	Completed

Appendix Q

Participants' SPIN, SIAS, SPS and DASS-21 Scores at Pre- Treatment, Post-Treatment, and Follow-Up Assessment.

	SPIN			SIAS			SPS			DASS-21								
										Depression			Anxiety			Stress		
Participant	Pre	Post	F/U	Pre	Post	F/U	Pre	Post	F/U	Pre	Post	F/U	Pre	Post	F/U	Pre	Post	F/U
1	48	48	48	57	57	57	45	45	45	8	8	8	7	7	7	9	9	9
2	44	29	29	56	38	38	48	21	21	4	4	4	6	1	1	9	3	3
3	54	33	29	50	32	24	56	33	24	9	4	6	14	8	3	17	14	10
4	52	43	36	56	64	50	66	52	44	17	7	15	13	3	8	21	6	15
5	36	36	12	62	57	31	32	22	14	19	10	11	11	11	1	15	15	5
6	55	36	31	56	49	30	43	46	21	13	0	8	16	4	7	9	2	7
7	43	17	9	59	21	18	51	5	3	7	6	1	9	8	0	11	11	2
8	51	28	15	63	21	29	35	36	17	7	13	7	5	12	8	9	15	11

Note. SPIN= Social Phobia Inventory; SIAS= Social Interaction Anxiety Scale; SPS= Social Phobia Scale; Pre = pre-treatment score; Post = post-treatment score; F/U= follow-up score.